

# WATERMARK

2004, Number 2

National Flood Insurance Program

## NFIP UPDATE

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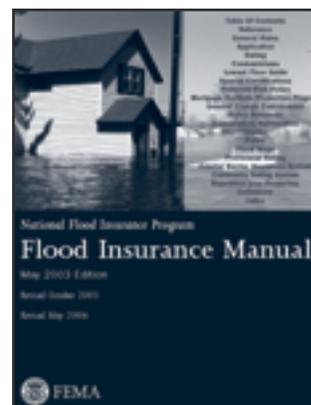
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Effective May 1, 2004, NFIP premium rates were modified and several changes were made to clarify procedures described in the *Flood Insurance Manual*. In addition, the Preferred Risk Policy has been significantly revised to broaden availability and expand coverage limits (see related article below), and a number of communities have improved their class in the NFIP's incentive program—the Community Rating System (CRS).

### Rates Adjusted

Flood insurance premiums have increased an average of 3 percent for policies written or renewed on or after May 1, 2004. The premium increases vary by zone, as described in the table on page 3.

These rate changes are reflected in the RATE, CONDO, PRP, and END sections of the manual.



continued on page 3

### PRP Enhancements

The Preferred Risk Policy (PRP) was introduced in January 1989 in response to requests from insurance agents for an inexpensive flood policy that could be sold to cover low- to moderate-risk properties. They wanted a policy that would be simple to understand and easy to process. This new flood coverage was a success, and, in the 15 years since it was first offered, the PRP has been the NFIP's fastest growing insurance product. Property owners don't just want to buy the PRP; they want to keep it once the coverage is in place. A recent study shows that the PRP's renewal retention is greater than 90 percent, comparable to those policies written in Special Flood Hazard Areas.

### New PRP Coverage

Effective May 1, 2004, FEMA introduced major changes to the PRP to enhance its marketability even more. The PRP now offers coverage not only to owners but also to renters of eligible buildings. The new PRP includes the following changes:

- Combined building/contents coverage available for non-residential properties.
- Contents-only coverage available for all eligible occupancies.

continued on page 4



# FEMA

## Message from the Acting Director

Dear *Watermark* Reader,

I am honored to serve as the Acting Federal Insurance Administrator and Head of the Mitigation Division for the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA). Having served as Director of the FEMA Region VIII Office since 2001, I am familiar with many of the accomplishments and challenges you have experienced in the past two and a half years.

Throughout my career, I've worked to make my community, State, and region safer places to live and work: first as Mayor of Beatrice, Nebraska, then as a Nebraska State Senator, and later as Nebraska's Lieutenant Governor. I also have an understanding of the insurance industry. Now I intend to support the NFIP's stakeholders in using prevention, protection, and preparation to lessen the impact of man-made and natural hazards across the country.

On June 30, 2004, the President signed into law the Flood Insurance Reform Act of 2004. This Act extends the authorization of the National Flood Insurance Program (NFIP) through September 30, 2008, and provides FEMA with new and enhanced mitigation programs that will help address the adverse economic impacts that repetitive loss properties have upon their residents and upon the NFIP.

FEMA's Map Modernization Program continues to move forward. Through multi-hazard map layering we are offering communities and States the ability to visualize the hazards they need to prepare for and mitigate. More than 300 flood map projects are under way nationwide—using \$85 million of Fiscal Year 2003 funding—to meet national standards for geospatial data.

Another tool we hope will avert disasters is Pre-Disaster Mitigation (PDM). Through PDM funding, FEMA assists State and local governments (including Indian Tribal governments) in implementing cost-effective hazard mitigation activities. PDM is a grant program, and, to receive funding, applying governments must participate in the NFIP if they have jurisdiction over land that includes any Special Flood Hazard Areas.

People need to be prepared for floods and to be able to get back on their feet fast when floods happen. Flood insurance makes it possible to shift quickly from response to recovery. But if flood insurance is to be more effective, the number of NFIP policies in force must be increased. FEMA has implemented a new comprehensive marketing and advertising campaign, FloodSmart, which is designed to increase policy sales and retention. In addition, we are continuing to support Federal regulatory and lending agencies in ensuring that the mandatory flood insurance purchase requirements are met.

FEMA is relying on some of the most dedicated people in the country to make this program work. We are relying on you and every other NFIP stakeholder to apply your insight, creativity, and energy to the task of communicating the NFIP's message and letting us know what has worked and what could work better. I look forward to joining you in this partnership. Together, we can create a safer future for all of our communities.

Sincerely,

David I. Maurstad  
Acting Director  
Mitigation Division  
Emergency Preparedness and Response Directorate



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[www.fema.gov/nfip/wm.shtm](http://www.fema.gov/nfip/wm.shtm)

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## May 1, 2004, Rate Changes

### V Zones (Coastal high-velocity zones)

Larger rate increases have been implemented again this year as a result of the Erosion Study conducted by the H. John Heinz, III, Center. The Congressionally mandated study indicates that previous rates significantly underestimated the increasing hazard presented by steadily eroding coastlines.

- Post-FIRM V Zones  
*Premiums have increased approximately 8 percent—just slightly less than last year’s increase.*
- Pre-FIRM V Zones  
*Premiums have increased 6 percent.*

### A Zones (Non-velocity primarily riverine zones)

Modest increases will keep Post-FIRM rates at actuarial levels and will slightly decrease the amount of Pre-FIRM rate subsidy.

- Post-FIRM A Zones  
*Premiums have increased about 3 percent as indicated by the NFIP’s actuarial rate model.*
- Pre-FIRM AE Zones  
*Premiums have increased approximately 3 percent.*
- AO, AH, AOB, AHB Zones  
*There is no rate change in these shallow-flooding zones where the loss experience has been favorable.*
- Unnumbered A Zones  
*Premiums have increased approximately 3 percent in these remote A Zones where elevations have not been determined. This increase is designed to keep premiums in line with those for Post-FIRM AE Zones.*
- AR Zones  
*Some rates have changed slightly in these zones; however, there is no overall change to the average premium.*

### B, C, and X Zones (outside of Special Flood Hazard Areas)

Moderate increases have been implemented in these zones.

- Standard Flood Insurance Policy  
*Premiums have increased 3 percent.*
- Preferred Risk Policy  
*Major revisions have been introduced (see article beginning on Page 1). The Federal Policy Fee has increased \$1 to \$11.*

## PRP Revised

The Preferred Risk Policy (PRP) has been significantly revised. Previously, the PRP was available only to owners of 1- to 4-family residences. For these policyholders, the amount of contents coverage provided by the PRP has been increased to an amount equal to 40 percent of their building coverage. The maximum coverage combination under the PRP for 1- to 4-family occupancies is now \$250,000 building and \$100,000 contents.

In addition, PRP coverage now is available at reasonable rates to owners of non-residential properties such as businesses, schools, and farms. For these property owners, the maximum coverage combination under the PRP is \$500,000 building and \$500,000 contents. Contents-only versions of the PRP are now available for all eligible occupancy types (see pages PRP 1-3 in the May 1, 2004, *Flood Insurance Manual*).

All PRPs will continue to be subject to the underwriting eligibility rules that require the property to be currently mapped in a B, C, or X Zone at policy inception and at each renewal. With a few exceptions (see page 4 for the “Eligibility” section of the PRP article), individual condominium units are not eligible for the PRP. In addition, contents located exclusively in a basement are not eligible for the contents-only PRP.

## Community Rating System Changes

More than 30 communities were awarded larger insurance premium discounts as of May 1, 2004. The Community Rating System (CRS), the incentive program that rewards community floodplain mitigation activity

exceeding requirements for participation in the NFIP, welcomed 12 new communities at the beginning of May and improved the classes of 19 communities that already were participating in the program. The following tables summarize these CRS changes.

**Class Ratings and Premium Discounts of 12 Communities That Joined, or Were Reinstated in, the CRS Since October 2003**

<b>New or Reinstated Communities</b>	<b>Entering Class Rating</b>	<b>Premium Discount</b>
3	9	5%
5	8	10%
4	7	15%

**Numbers of Communities that Improved Their Class Rating by 1 Since October 2003**

<b>Upgraded Communities</b>	<b>Class Change</b>	<b>New Premium Discount</b>
6	9 to 8	10%
11	8 to 7	15%
1	6 to 5	25%

One community, the City of Chehalis, Washington, engaged in mitigation activities that warranted so many credit points that its rating leapfrogged an entire class, earning significantly greater premium discounts for area policyholders. This community moved from Class 8 to Class 6, increasing the NFIP premium

discount for residents from 10 to 20 percent.

As of May 1, 2004, there were 1,002 CRS communities spread throughout the United States.

**Optional Deductibles**

On page RATE 13, adjustments were made to the Deductible Factors to reflect the higher deductibles that went into effect in 2003, for "non-residential" properties and "other residential" properties. Definitions of non-residential properties (such as commercial buildings, churches, schools, motels, and farm buildings) and "other residential" properties (such as residential motels and boarding schools) can be found on page 6 of the DEF section of the *Flood Insurance Manual*.

**Find It Online**

The entire *Flood Insurance Manual* is accessible online and can be printed free of charge by visiting the FEMA web site ([www.fema.gov/nfip/manual.shtm](http://www.fema.gov/nfip/manual.shtm)). You can also order a hard copy of the manual and receive future manual updates through December 31, 2004, by calling FEMA's Map Service Center at 800-358-9616. Or you can mail a copy of the manual order form, which also can be found on the FEMA web site ([www.fema.gov/msc/orderfrm.pdf](http://www.fema.gov/msc/orderfrm.pdf)). 

**PRP Enhancements, continued from page 1**

- Higher limits of \$250,000 building and \$100,000 contents available for 1- to 4-family residential.

**PRP Pluses**

- There are now new PRP markets: commercial building owners and lessees, residential renters.
- Higher contents coverage on residential PRPs is now available with only a \$1 increase over past annual premiums.
- Higher deductibles that result in lower premiums are now available with only a \$1 increase over past annual premiums for commercial buildings.

The PRP is an easy policy to write—it's a one-page form with pre-set limits and premium.

- Limits of \$500,000 building and \$500,000 contents available for non-residential.
- Limit of \$100,000 contents-only coverage available for other residential.
- Decrease in ICC premium to \$1.00, and increase in Federal Policy Fee to \$11.00.

**Eligibility**

To be eligible for the PRP, the building must be in a B, C, or X Zone on the effective date of the policy. The flood map available at the time of renewal determines a building's continued eligibility for the PRP. NFIP map grandfathering rules do not apply to the PRP. The only condominium units eligible for the PRP are townhouse/rowhouse buildings insured under the unit owner's name; detached, single-family dwellings insured under the unit owner's name;

## New Marketing Opportunities

### Residential Renters

- PRP contents-only coverage is now available for renters of apartments and homes.

### Homeowners

- Higher PRP contents coverage is now available for a one-dollar increase over past premiums.
- Contents coverage has been increased to an amount equal to 40 percent of the building coverage.
- There are new residential PRP maximums: \$250,000 building/\$100,000 contents.

### Commercial Policyholders

- This lower-cost PRP option—almost a third less expensive than current SFIP premiums—is now available for commercial building owners and lessees in moderate- and low-risk areas.

### Property Doesn't Qualify for a PRP?

- Higher deductibles that result in lower premiums are now available for standard policies that don't qualify for PRPs.

and contents-only coverage for tenants occupying townhouse/rowhouse buildings or detached single-family dwellings.

Although property owners across the United States can purchase the PRP, it is not available in Special Flood Hazard Areas or in Emergency Program communities. There are several additional eligibility exclusions. Buildings classified as "Other Residential" are not eligible for building coverage. Contents that are located entirely in a basement are not eligible for contents-only coverage. In

addition, optional deductibles are not available on PRPs.

A building's eligibility for the PRP is based not just on the above requirements but also on the building's flood loss history. If any one of the following conditions exists, regardless of any change(s) in ownership of the building, then the building is not eligible for the PRP:

- 2 flood insurance claim payments, each more than \$1,000; or
- 3 or more flood insurance claim payments, regardless of amount; or
- 2 Federal flood disaster relief payments (including loans and grants), each more than \$1,000; or
- 3 Federal flood disaster relief payments (including loans and grants), regardless of amount; or
- 1 flood insurance claim payment and 1 Federal flood disaster relief payment (including loans and grants), each more than \$1,000.

## Applying for the PRP

All PRP new business applications must include documentation of eligibility for the PRP. Such applications must be accompanied by one of the following: a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR); a copy of the most recent flood map marked to show the exact location and flood zone of the building; or a letter containing the same information and signed by the local community official; or an elevation certificate containing the same information and signed by a surveyor, engineer, architect, or local community official;

## Reduce Agent Errors and Omissions (E&O) Exposure

- Review your portfolio of flood business to ensure that your customers have the best coverage for the best price.
- Review your portfolio of commercial Property and Casualty clients to identify new opportunities. The PRP can be a great complement to the standard Business Owners Policy (BOP).

or a flood zone determination certification that guarantees the accuracy of the information.

See the PRP Coverages Table on page 6 for details about the recent changes. 



## PRP COVERAGES AVAILABLE EFFECTIVE MAY 1, 2004

### ONE- TO FOUR-FAMILY RESIDENTIAL BUILDING AND CONTENTS COVERAGE COMBINATIONS<sup>1</sup>

With Basement or Enclosure			Without Basement or Enclosure		
Building	Contents	Premium <sup>2,3</sup>	Building	Contents	Premium <sup>2,3</sup>
\$ 20,000	\$ 8,000	\$137	\$ 20,000	\$ 8,000	\$112
\$ 30,000	\$ 12,000	\$163	\$ 30,000	\$ 12,000	\$138
\$ 50,000	\$ 20,000	\$205	\$ 50,000	\$ 20,000	\$180
\$ 75,000	\$ 30,000	\$232	\$ 75,000	\$ 30,000	\$207
\$100,000	\$ 40,000	\$263	\$100,000	\$ 40,000	\$233
\$125,000	\$ 50,000	\$279	\$125,000	\$ 50,000	\$249
\$150,000	\$ 60,000	\$294	\$150,000	\$ 60,000	\$264
\$200,000	\$ 80,000	\$331	\$200,000	\$ 80,000	\$296
\$250,000	\$100,000	\$352	\$250,000	\$100,000	\$317

### ALL RESIDENTIAL CONTENTS-ONLY COVERAGE<sup>1, 4</sup>

Contents Above Ground Level More Than One Floor		All Other Locations (Basement-Only Not Eligible)	
Contents	Premium <sup>2</sup>	Contents	Premium <sup>2</sup>
\$ 8,000	\$ 39	\$ 8,000	\$ 61
\$ 12,000	\$ 53	\$ 12,000	\$ 86
\$ 20,000	\$ 81	\$ 20,000	\$116
\$ 30,000	\$ 93	\$ 30,000	\$131
\$ 40,000	\$105	\$ 40,000	\$146
\$ 50,000	\$117	\$ 50,000	\$156
\$ 60,000	\$129	\$ 60,000	\$166
\$ 80,000	\$153	\$ 80,000	\$181
\$100,000	\$177	\$100,000	\$196

### NON-RESIDENTIAL BUILDING AND CONTENTS COVERAGE COMBINATIONS<sup>1</sup>

With Basement or Enclosure			Without Basement or Enclosure		
Building	Contents	Premium <sup>2,3</sup>	Building	Contents	Premium <sup>2,3</sup>
\$ 50,000	\$ 50,000	\$ 800	\$ 50,000	\$ 50,000	\$ 500
\$100,000	\$100,000	\$1,375	\$100,000	\$100,000	\$ 800
\$150,000	\$150,000	\$1,850	\$150,000	\$150,000	\$1,050
\$200,000	\$200,000	\$2,200	\$200,000	\$200,000	\$1,300
\$250,000	\$250,000	\$2,500	\$250,000	\$250,000	\$1,500
\$300,000	\$300,000	\$2,800	\$300,000	\$300,000	\$1,700
\$350,000	\$350,000	\$3,100	\$350,000	\$350,000	\$1,850
\$400,000	\$400,000	\$3,350	\$400,000	\$400,000	\$2,000
\$500,000	\$500,000	\$3,850	\$500,000	\$500,000	\$2,300

### NON-RESIDENTIAL CONTENTS-ONLY COVERAGE<sup>1, 4</sup>

Contents Above Ground Level More Than One Floor		All Other Locations (Basement-Only Not Eligible)	
Contents	Premium <sup>2</sup>	Contents	Premium <sup>2</sup>
\$ 50,000	\$121	\$ 50,000	\$ 275
\$100,000	\$231	\$100,000	\$ 500
\$150,000	\$321	\$150,000	\$ 675
\$200,000	\$381	\$200,000	\$ 850
\$250,000	\$441	\$250,000	\$1,000
\$300,000	\$501	\$300,000	\$1,150
\$350,000	\$561	\$350,000	\$1,300
\$400,000	\$621	\$400,000	\$1,450
\$500,000	\$741	\$500,000	\$1,700

<sup>1</sup>Add the \$50.00 Probation Surcharge, if applicable.

<sup>2</sup>Premium includes Federal Policy Fee of \$11.00.

<sup>3</sup>Premium includes ICC premium of \$1.00. Deduct this amount if the risk is a townhouse/rowhouse condominium unit.

<sup>4</sup>Contents-only policies are not available for contents located in basement only.

NOTES: Condominium associations are not eligible for the Preferred Risk Policy. Individual condominium units are not eligible unless they qualify under one of the exceptions on page PRP 2 of the NFIP Flood Insurance Manual.

The deductibles apply separately to building and contents. Building deductible, \$500. Contents deductible, \$500.

# Cross-selling and Up-selling

Lynn Thomas, 21st Century Management Consulting, Inc.

I have consistently been amazed that many insurance companies and agencies still carry the majority of their customers, including personal lines, as monoline accounts. This is not economically feasible. It costs money to keep monoline customers on the books for the first 4 to 9 years; thus, monoline accounts are unprofitable. Yet the monoline pattern persists. Why? What can be done to change the pattern? How can agencies increase their revenue per relationship? Those are some questions that this article will address.

## Develop Multiple Connections

It is known in banking that, if a customer has seven products with your bank, then almost no matter what occurs, the customer will not leave. The most powerful banking product is a safety deposit box. When I worked in private banking in the 1980s, we were told that, if we could sell a customer a safety deposit box, the customer would not leave the bank. Think about yourself. How often do you move your safety deposit box? Unless you've moved to a new area, your answer probably is "very infrequently."

I don't know if there is an insurance product with that same "super glue" power. I think there are some ancillary services that could keep customers coming back. The bottom line is that you want your customers—especially your most profitable ones—to be so intertwined and involved with your agency that for

them to move their business would require too much time and effort and produce unwanted headaches and problems. Thus, your goal is to develop multiple connections that will make it undesirable for them to leave.



Lynn Thomas, 21st Century Management Consulting, Inc.

## Cultivate Customer Loyalty

Sounds good, but how do you cultivate customer loyalty? The proven method is to cross-sell and up-sell your customers. The more they depend on you for their insurance, the more difficult it will be for them to recreate this relationship with another agency. And who has the time to do that, anyway? This is a powerful point. None of us has the time to recreate strong relationships anywhere in our lives. Time is on your side.

If you are serious and want cross-selling and up-selling to work for you, follow these 10 ground rules.

1. Commit to becoming a proactive rather than a reactive agency. You need to be willing to proactively nurture and manage relationships with your customers.
2. Write a Cross-selling and Up-selling Plan and stick with it for a minimum of 2 to 3 years.
3. Engage both your sales people and your service people. Cross-selling and up-selling is everyone's job. Everyone's!
4. Track and measure results.
5. Provide meaningful incentives for your sales and service people. Refer to *1001 Ways to Reward Employees*, by Bob Nelson.
6. Make it fun to promote flood insurance. Refer to *The Fun Factor*, by Carolyn Greenwich.
7. Do not accept commercial or personal monoline customers, unless they meet the criteria for "A" or "B" customers (see my article "The Bottom Line: Profitability" on pages 8-10 in the Summer 2002 *Watermark*).
8. Write a Relationship Management Plan for upgrading your "B" and "C" customers to "A" and "B" customers.
9. Include in the Relationship Management Plan proactive strategies for cultivating customer loyalty and creating opportunities to sell additional services and products.
10. Have your sales and service people customize and regularly apply at

least two or three of the strategies in the Relationship Management Plan.

## Create Sales Opportunities

To expand on ground rules 8 through 10, here are some proactive nurturing strategies that will create sales opportunities. Add some of your own.

- Put together a Welcome Aboard! Package to orient new customers, answer typical questions, and cultivate loyalty to your agency.
- Conduct an annual review of each customer's insurance coverages. This is the perfect time to discuss additional coverage needs. It can create a relatively easy sale. Coverage reviews have been one of the most formidable competitive advantages reported by many of my clients.
- Mail handwritten thank-you notes. This is a rarity in today's computerized world. Many customers will call to thank you for the note. This can provide an opportunity for your service people to open a discussion with your customers about their insurance needs.
- Keep a record of critical dates in your customers' lives that could necessitate a change in their insurance coverages. Proactively call them 2 or 3 weeks before these critical dates. They will be impressed that you remembered.
- Train the sales and service people how to seize the opportunity, when customers call, to tell them of new

products and services that your agency is offering.

- Script and record a pleasant, informative telephone "hold" message that describes all of the products and services your agency offers. My experience with more than 75 client insurance agencies has shown me that 60 percent or more of customers are not aware of all of the products and services that their agency offers.
- To ensure that your customers know what your agency offers, regularly send newsletters and other mailings that describe all of your products and services. Remember, repetition is how human beings learn—and it is the key to successful marketing and advertising. Offering information once or twice is not enough. It will never be enough. Be persistent with your sales pitch, and you will be rewarded handsomely. To maximize your response rate, make it easy for your customers to respond and provide them with an incentive to do so promptly. Include a fax-back option or a toll-free telephone number as well as your e-mail or web page address on all materials you distribute. This contact information is becoming essential. For the incentive, you might offer the first 20 people who respond a coupon for a free ice cream at a local ice cream parlor in the summer months, or a tour of a building of local interest, or a bouquet of balloons delivered to their favorite charity.

## Start Now

You now have the basics to start a very focused, thorough, and profitable cross-selling and up-selling program. Remember, as you begin, that this is not a 1-day, 1-week, or 1-month effort. This is a long-term commitment to be the best.

Create ways to have many threads—each representing a product or service—that connect your agency to your customers. You cannot have too many connections. Ensuring that your customers will recognize the costs of severing these ties will far exceed the benefits of working through any problems that may arise with your agency.

Be forewarned, though, that you must become proactive and stay proactive. Keep on top of this program. The days of being a reactive agency and expecting to grow and become profitable are history. Relationships today must be proactively nurtured and managed to be retained. And retention is the name of the profitability game for the year 2004 and beyond. 

*Lynn Thomas has worked in the customer retention field for 14 years with many of the top insurance companies in the country. She is founder of 21st Century Management Consulting, Inc., the only retention firm in the United States that specializes in insurance. Thomas has conducted hundreds of market research projects in retention and has made thousands of presentations about the field, including two for NFIP National Flood Conferences and one for Write Your Own (WYO) companies.*

## NFIP Award Winners

Each year, the NFIP honors a number of stakeholders who've made outstanding contributions to the Program. The following NFIP partners were recognized at the 2004 National Flood Conference in Seattle, Washington, for activities they'd undertaken during Fiscal Year 2003 (October 1, 2002 through September 30, 2003).

### Agency of the Year Awards

This award is given to three insurance agencies displaying innovative marketing strategies, increasing their flood portfolios, and actively promoting flood awareness (see the article in the next edition of *Watermark* for details about these award winners).

This year's winners of the Agency of the Year Awards were:

- Cape Fear Insurance Associates, Inc.
- Housing Insurance Services, Inc.
- The Rob Dunagan Agency, Inc.



Agency of the Year Award winners (from left): Rob Dunagan of the Rob Dunagan Agency, Inc., Kimberly Tompkins of Housing Insurance Services, Inc., and Walter Hester of Cape Fear Insurance Associates, Inc.

### Public Awareness Materials Contest

WYO companies and other NFIP partners are urged to submit recent flood awareness materials they've developed to the Public Awareness Materials Contest held at the National Flood Conference each year. Conference participants have the opportunity to vote for the companies that produced the most creative and compelling materials.

Of the companies who entered items in this year's contest, the winners were:

- Travelers Property Casualty, Inc., for Best Printed Marketing Material
- Travelers Property Casualty, Inc., for Best Advertising Material
- American Bankers Insurance Company for Best Training Material



Accepting the awards for the Best Printed Marketing Material and the Best Advertising Material was Cynthia DiVincenti for Travelers Property Casualty, Inc. Accepting the award for Best Training Material was Ron Abbene for American Bankers Insurance Company.

## Administrator's Club and Trophy Awards

The Administrator's Club Award is bestowed each year upon several WYO companies in recognition of their contribution to the growth of the NFIP. One winner is selected in each of five groups representing policy base thresholds. This year's Administrator's Club Award winners were:

- First Community Insurance Company
- Hartford Fire Insurance Company
- Homesite Insurance Company
- Southern Family Insurance Company
- Universal Insurance Company

The company that experienced the highest percentage of overall growth during the most recent Arrangement Year is awarded the Administrator's Club Trophy. The 2002-2003 Administrator's Club Trophy winner was:

- Universal Insurance Company

## Administrator's Quill Award

This award recognizes the WYO company with the highest percentage of overall growth, excluding rewritten policies. The Administrator's Quill Award was given this year to:

- First Community Insurance Company



Accepting the Administrator's Club Awards were (from left): April Hunter for Homesite Insurance Company, Bill Gentino for Hartford Fire Insurance Company, Patty Templeton-Jones for First Community Insurance Company, David Gough for Southern Family Insurance Company, and Gregg Hultquist of National Con-Serv, Inc., for Universal Insurance Company.

## Conference Highlights

In the next edition of *Watermark* we will include the keynote speech from this year's National Flood Conference. Also featured will be an article about the Agency of the Year Award winners.



Ed Connor, FEMA, (left) presents the Roy T. Short Memorial Award to Jon Petersen of the Affiliated Flood Group.

## Roy T. Short Memorial Award

The National Lenders Insurance Council (NLIC) gives this award to honor innovative and inspiring people who have rendered the best service to lenders attempting to comply with Federal regulations while protecting investors and consumers from flood losses.

The award was given this year to Jon Petersen of the Affiliated Flood Group. During the last year, Jon has devoted his personal time and talents to help the Council update its web site ([www.nlic.org](http://www.nlic.org)), proposing changes and enhancements that will enable NLIC to better share its vision and mission with its members and others. Because of Jon's initiatives, NLIC members will be able to use the web site interactively.



Ed Connor, FEMA, (left) presents the NLIC Special Recognition Award to Joyce White of Southwest Business Corporation.

## NLIC Special Recognition

This year, the NLIC also recognized Tony Hart and Joyce White of Southwest Business Corporation for their work in innovative product development. According to NLIC Chair Mike Moye, "These two individuals set the course for lender compliance. The lender placed insurance program they began in 1984 has made it significantly easier for the lending community to comply with federal flood insurance regulations." 

# Repetitive Losses: Breaking the Cycle

Cynthia Pollnow and Errol Garren, FEMA

FEMA periodically evaluates the loss history of NFIP-insured properties and adjusts insurance rates to cover average losses. It has become clear that certain properties have contributed disproportionately to the pressure to raise the insurance rates. These are repetitive loss properties, which are defined as buildings that have incurred flood insurance claim payments on multiple occasions. FEMA hopes to minimize NFIP rate increases by aggressively identifying technically feasible and cost-appropriate mitigation measures for repetitive loss properties and by providing financial assistance to help the communities and owners of repeatedly flooded properties better protect their homes and businesses.

A disproportionate share of premium income continues to be spent on claims for repetitive loss properties. In the history of the NFIP, more than \$5 billion of a total \$12.3 billion in claim payments has been made on repetitive loss properties. Without mitigation of repetitive loss properties, FEMA will pay an additional \$200 million or more each year on claims for these properties (based

on an average historical loss year). In high loss years, the NFIP has been forced to borrow from the U.S. Treasury to pay claims. These funds



Water stands in a former residential area in Missouri that was included in a floodplain buyout program after the Midwest flood of 1993.

are repaid—with interest. Repetitive loss properties impede the NFIP's ability to build up reserves and predispose the Program to borrowing, placing an unacceptable burden on all NFIP policyholders.

## The Criteria

FEMA has identified almost 50,000 of the 4.4 million properties insured by the NFIP as repetitive loss properties. Repetitive loss properties are generally defined as those that have had at least two losses of more than \$1,000 in any 10-year period since 1978. FEMA's Repetitive Loss Strategy focuses on a subset of these that includes properties that have had (1) four or more losses of more than \$1,000 each, or (2) two or

three losses where the cumulative flood insurance claim payments are equal to or greater than the building's market value.

Approximately 11,000 properties meet the subset criteria and together account for nearly 10 percent of all NFIP losses annually. For each of these properties there is a family or business caught in the cycle of repeated flooding and disruption. It is one of the FEMA Mitigation Division's top priorities to mitigate the most severe of these repetitive loss properties by September 30, 2007.

## Mitigation Strategies

The repetitive loss problem cannot be solved through flood insurance mechanisms alone. Mitigation actions such as acquiring, elevating, relocating, or dry floodproofing also must be undertaken. FEMA's grant programs, mapping initiatives, and expertise in engineering science, communication, insurance, and floodplain management are all being used to reduce NFIP repetitive losses, now and in the future. Several actions already have been taken or are under development to address the repetitive loss issue.

## Isolating the Policies

A Special Direct Facility (SDF) was established in August 2000 to service NFIP policies issued on those properties that meet the subset criteria noted above. The SDF concentrates on tracking these properties

by reviewing their loss history, verifying their claim adjustments, issuing and reviewing correspondence, managing the appeal process, and communicating opportunities for mitigation to the property owners and to the appropriate state and federal agencies.

## An Action Plan

Under development at FEMA is a Comprehensive Repetitive Loss Action Plan to develop inspection guidance and tools, initiate studies that examine specific aspects of the repetitive loss problem, and empower the FEMA Regional Offices to reduce the number of repetitive losses.

## Grant Program Opportunities

FEMA's mitigation grant programs—the Flood Mitigation Assistance (FMA) Program, the Pre-Disaster Mitigation (PDM) Program, and the Hazard Mitigation Grant Program (HMGP)—are being used to provide opportunities for property owners to mitigate their repetitive loss properties. All Fiscal Year 2003 and 2004 FMA funds have been directed toward mitigating repetitive loss properties. In addition, those Fiscal Year 2003 PDM applications that addressed repetitive loss have been given greater weight in the competitive process. Additionally, FEMA and the States continue to work closely together after flood events to include the mitigation of repetitive loss properties in HMGP projects.

## Technical Guidance And Mapping

Mitigation technical guidance is being expanded to emphasize activities that are cost appropriate relative

to structural damage from flooding. Additional technical guidance is under development to encourage communities to take actions that reduce or prevent repetitive flood losses in moderate-risk zones. Since 1978, the NFIP has paid more than \$2.8 billion in claims in B, C, and X Zones, including \$1.1 billion for repetitive loss claims. Unless action is taken to prevent and reduce losses outside of the SFHA, it is likely that future repetitive losses in B, C, and X zones will account for an increasing percentage of NFIP claims. As part of FEMA's multi-year Map Modernization initiative, areas that have sustained B, C, and X zone losses are being investigated and map revisions may follow.

## Attitudinal Study

In some cases, NFIP-insured property owners have declined offers of mitigation assistance. An attitudinal study is under way to identify the most common reasons that repetitive loss property owners accept or decline mitigation assistance offers. The types of offers studied include acquisition, relocation, and elevation projects funded through FMA and HMGP. FEMA's goal is to use the results of this study to improve program implementation at the state and local levels, and ultimately increase property owner participation in future flood mitigation projects.

## FEMA Regions

In 2003, all FEMA Regional Offices were allocated additional financial

resources to help communities and states impacted by repetitive flood losses in their efforts to integrate the mitigation of repetitive loss properties into local and State mitigation plans. Repetitive Loss Coordinators have been named in each FEMA Regional Office to track repetitive loss activities in their region.

## ICC Coverage

The limit of Increased Cost of Compliance (ICC) coverage available under the standard NFIP policy was raised to \$30,000 in May 2003. Under FEMA's mitigation grant programs, the ICC claim payment can be used as the non-federal matching



An elevated home in Decatur County, Tennessee, avoided flooding when the river overflowed its banks in May 2003.

portion of funds used for mitigation work, thus making ICC an incentive to property owners who want to mitigate their repetitive loss property as part of a community sponsored project. FEMA is in the process of proposing regulations and developing updated guidance to further assist States and communities to use ICC funds as a matching source for all FEMA mitigation grant programs.

## Lifting the Burden Together

Community and State officials can help to reduce the number of repeti-

tive loss properties by adopting and enforcing substantial damage regulations and by adopting lower substantial damage thresholds or cumulative substantial damage requirements. An added benefit is that higher regulatory standards such as these are creditable under the Community Rating System, the program that provides premium discounts for communities that engage in floodplain management activities beyond those required for participation in the NFIP.

Local and State officials also can facilitate the reduction of repetitive losses by implementing a comprehensive flood mitigation program that specifically prioritizes repetitive loss-

es; applying for federal and state mitigation assistance; and educating repetitive loss property owners about flood preparedness, ICC coverage, and mitigation measures.

Solving the repetitive loss problem will require a team effort. But, by working together, NFIP stakeholders can better identify opportunities for mitigating repetitive loss structures and draw on each other's expertise to engage in activities that eventually will lift the unacceptable burden these properties place on the NFIP and its policyholders throughout the United States. 

*Errol Garren, CPCU, is a Program Specialist in the Risk Assessment Branch of FEMA's Mitigation Division. Garren worked with Insurance Services Office, Inc., for 23 years before coming to FEMA, initially conducting underwriting inspections and community evaluations of fire suppression potential and later administering the NFIP's Community Rating System in five FEMA Regions. Garren holds the Certified Floodplain Manager designation.*

*Cynthia Pollnow is a Program Specialist in the Community Assistance Section of FEMA's Mitigation Division, focusing on the mitigation of repetitive loss properties. Pollnow has worked with FEMA since 1989, five of these years with FEMA Region II.*

## Voted off the Island in 2004

The flyer to the right lists the names of 21 guests that no one wants to party with during the 2004 hurricane season (June–November). If any of these names seem familiar, it is probably because they were used in 1998, when Hurricane Bonnie wreaked havoc in Virginia, North Carolina, South Carolina, and Georgia; Tropical Storm Charlie brought severe flooding to Texas; Hurricane Earl hit Florida; Tropical Storm Frances struck the Gulf Coast states; and rains from Tropical Storm Hermine soaked Louisiana.

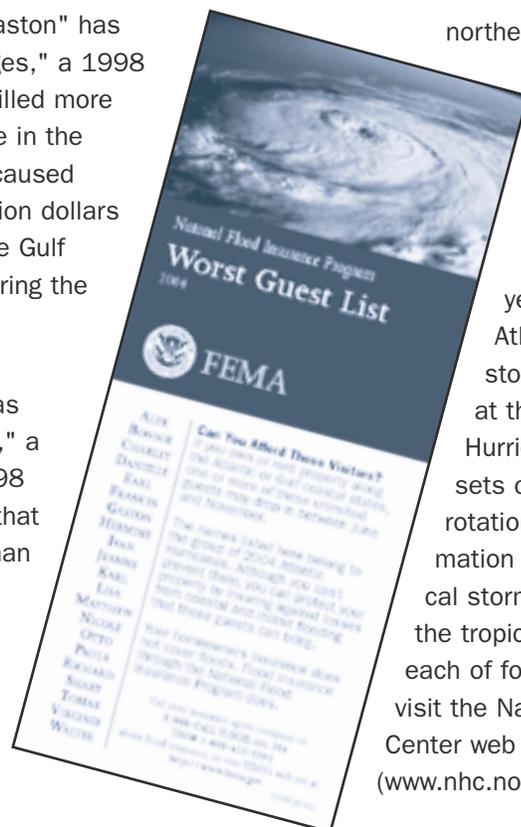
Two of the names from the 1998 list have been retired because the storms that bore them caused extraordinary damage and loss of life.

This year, "Gaston" has replaced "Georges," a 1998 hurricane that killed more than 200 people in the Caribbean and caused more than a billion dollars in damage in the Gulf Coast states during the second half of September.

"Matthew" has replaced "Mitch," a slow-moving 1998 killer hurricane that claimed more than 9,000 lives in Central America at the end of October before it moved

northeast to come ashore in Florida as a tropical storm, causing millions of dollars in damage.

For more than 50 years, the names of Atlantic tropical storms have originated at the National Hurricane Center. Six sets of names are now in rotation. For more information about Atlantic tropical storms and for lists of the tropical storm names for each of four Pacific regions, visit the National Hurricane Center web site ([www.nhc.noaa.gov](http://www.nhc.noaa.gov)). 



## Non-NFIP Policies—Are They Worth It?

Lena Thompson, FEMA

There are issues with non-NFIP flood insurance policies that have become more and more apparent to those of us who work with the NFIP's Standard Flood Insurance Policy (SFIP). These issues are of major concern not just at FEMA, but also to insurers and to lenders. Our concern is with the use of private insurance to protect property against flood. This sometimes occurs when a lender needs to find a policy to cover a mortgaged property that is uninsured or underinsured against flood. Policies purchased under these conditions are referred to as "lender-placed." FEMA's concerns about lender-placed private flood insurance policies are: (1) What are the merits and drawbacks of the flood insurance coverage offered by private carriers? and (2) What responsibilities does a lender have when considering a private flood policy?

### The Merits and Drawbacks of Private Flood Insurance

What does a private flood insurance policy offer that the SFIP doesn't? Well, private policies can be cheap. Some appear to have higher coverage amounts. A few even offer some of the coverage for flood damage that they claim to provide. But few private policies offer the extent of coverage provided by the SFIP. In the short term, low-cost, minimal coverage may be what a lender is looking for. But, in the long term, private carrier policies rarely protect the business or home that represents a lender's collateral.

There is an instance when private insurance can offer what the SFIP

can't—and that is coverage in locales where the SFIP isn't available. For instance, private insurance may be available in communities that do not participate in the National Flood Insurance Program. If a lender wants to protect collateral in a non-participating community, private flood insurance is the only way to protect that investment. Another instance in which a lender might turn to private flood insurance is in an underinsurance situation.

Protecting property against the risk of flood is a safety and soundness issue for lenders. The peril of flood loss is no joke, but some of those private flood policies are. For instance, one privately offered flood insurance policy, available in Guam, cites the following exclusion—"We will not cover you for loss or damage caused by: sea surge, tidal wave, high water, flood, erosion, subsidence or landslip (landslide)." That policy doesn't really cover flood, does it?

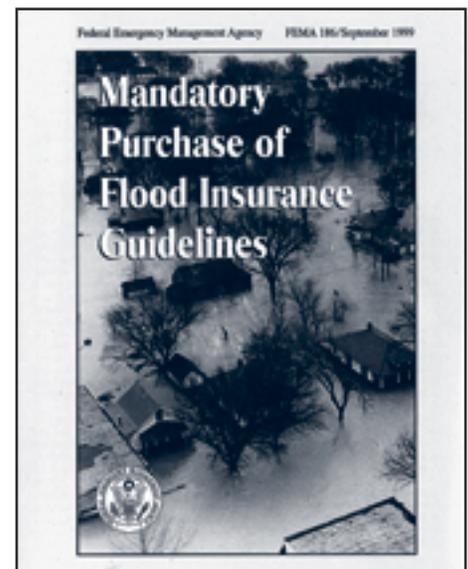
There are some specific drawbacks presented by private policies, beyond failure to cover the obvious aspects of flood damage. Some policies only offer property coverage if there are high limits on contents coverage. Some private policies have broad exclusions. For example, although the SFIP covers floodwater that backs up through sewers if there is a flood in the area (V. Exclusions, D., 5.), one private flood policy specifically excludes sewer backup.

In some cases, the SFIP covers property for the remediation of mold—a big issue since Tropical Storm Allison hit Texas in 2001. The

remediation of mold caused by flooding generally isn't even addressed by most private policies and is specifically excluded from at least one policy we've reviewed.

### Clarifying Lender Responsibilities

To help lenders understand and comply with the NFIP's mandatory purchase requirements, FEMA updated the *Mandatory Purchase of Flood Insurance Guidelines* in September



1999. This booklet (FEMA document 186) is a must-have for lenders. It can be obtained at no cost from the FEMA Distribution Center by calling 800-480-2520. It is also available on the FEMA web site ([www.fema.gov/nfip/mpurfi.shtm](http://www.fema.gov/nfip/mpurfi.shtm)).

What do the guidelines say about private flood insurance? The guidelines address private flood insurance with great caution—if you want to protect property from the risk of flood, you have to make sure the cov-

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erage is as broad as coverage offered by the NFIP.

Lenders must inform prospective borrowers of the availability of coverage from private insurers as well as the NFIP, as part of the notification procedure in making a loan. When the mandatory purchase law applies, the lender must consider the suitability of private policies and take into account the following:

- The insurer should be licensed or otherwise approved to do business in the jurisdiction where the building is located.
- In the case of non-residential commercial property insurance issued

under a policy of difference in conditions, multiple peril, all risk, or other blanket coverage, it should be sufficient if the insurer is recognized, or not disapproved, as a surplus lines insurer by the insurance regulator in the jurisdiction where the building is located.

- The private policy should be as restrictive in its cancellation provisions as the SFIP.
- The policy should guarantee that the flood insurance coverage is at least as broad as coverage provided by the SFIP relative to the deductibles, exclusions, and conditions.

- Finally, a lender should be satisfied that the private policy has a mortgage interest clause similar to the SFIP's.

Remember, you usually get what you pay for. This isn't simply a matter of "getting the best deal." Making sure your customer's home or business is protected and your portfolio is compliant is just good business.



*Lena Thompson has worked with FEMA for 25 years. She is the Mitigation Division's Lender Compliance Officer and can be reached at [lena.thompson@dhs.gov](mailto:lena.thompson@dhs.gov).*

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## Collaborative Mapping Program

FEMA's Cooperating Technical Partners (CTP) Program is seeking qualified participants—such as States, counties, communities, regional agencies, water boards, and other local entities that have the interest, capability, and resources to take a more active role in our flood mapping program—to collaborate in maintaining up-to-date flood maps and other flood hazard information. CTPs enter into an agreement with FEMA that formalizes their contribution and commitment to floodplain mapping, ensuring that their flood maps are accurate and adequately reflect local conditions. This relationship maximizes funding by

combining resources and aligning objectives with those of the CTP.

Communicating with our CTPs is vital to keeping everyone up to date and working toward the same goals. We now offer our CTPs an e-mail subscription service for receiving our monthly newsletter. This subscription service provides the following information each month:

- CTP news and announcements
- Training opportunities at FEMA's Emergency Management Institute and elsewhere
- Success stories

- Policy and procedure changes

- Map modernization initiatives and funding

For more information, visit the CTP page on the FEMA web site ([www.fema.gov/fhm/ctp\\_main.shtm](http://www.fema.gov/fhm/ctp_main.shtm)). If you are interested in subscribing to the CTP monthly e-mailing, contact Daphne Thornton of FEMA's Mitigation Division by calling 202-646-4019 or by sending her an e-mail message ([Daphne.Thornton@dhs.gov](mailto:Daphne.Thornton@dhs.gov)). 

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# Summer Storms

Lynd Morris, NFIP Bureau and Statistical Agent

**S**ummertime...and the livin' is easy. Or is it? Warm weather anywhere in the country can trigger severe thunderstorm activity that leads to tornado formation, lightning strikes, hail, and flooding.

Summer storms can be expensive as well as deadly. Flooding has been responsible for more than 130 Presidential Disaster Declarations during the last 10 summers. Data available for flood losses during the summer months of June, July, and August since 1983 indicates that nearly \$2.8 billion has been paid on 148,546 NFIP flood losses. Even in areas suffering from drought, summer thunderstorm or hurricane activity can produce costly flood damages.

The cost of human suffering caused by summer weather disasters is incalculable. The economic costs are severe. Although NFIP records can quantify the number and amount of flood losses paid each summer, the total economic impact of summer flooding is difficult to measure. How many flood victims were not insured against their losses? How much did national and local governments spend in disaster relief? What was the monetary value of assistance provided by service organizations such as the American Red Cross or local churches as they aided flood victims and helped communities recover? Summer tourism takes a substantial hit during and after floods. What were the lost revenues to flood-damaged communities when vacationers had to be evacuated or visitors opted to travel elsewhere?

## Preparation Is Good Protection

Summer thundershowers are a fact of life. Too little rain spells drought and a poor harvest as well as the possibility of wildfires. Too much rain can mean damaging floods and spoiled crops. Rainstorms that include lightning or that spawn tornadoes generate additional damage.

Some summer storms are short in duration. But other storm systems can stall over entire regions and saturate the ground, causing floods that may last for weeks or even months. For example, the 1993 Midwest

## National Weather Service Watches and Warnings

### Watches

Conditions are favorable and severe weather is possible within the area designated for the watch.

### Warnings

Severe weather has been sighted or has been indicated by radar. Necessary precautions should be taken immediately.

*See the NWS web site for more details about storm watches and warnings:*

[www.erh.noaa.gov/er/lwx/Defined/](http://www.erh.noaa.gov/er/lwx/Defined/)

Floods that began in the spring and ran through the summer caused such widespread damage across nine states that this flood event is ranked

as one of the most costly natural hazard events in U.S. history.

Let's take a look at how thunderstorms form, examine some of the types of storms that cause flood and wind damage in the summer months, and explore ways to prepare for and protect against summer storm damage.

## Weather Circulation

Winds are the result of air moving over the Earth from areas of high pressure to areas of low pressure. On a global scale, air circulates from the warm tropics to the cooler poles and back again, creating the polar jet stream and other winds high in the atmosphere. In the northern hemisphere, these winds generally move weather systems from west to east. On a smaller scale such as over the United States, as air heats, it rises, creating a low pressure area. Air near the surface quickly flows in to fill the gap left by the warmed air. The greater the difference in pressure between the low pressure area and the surrounding areas, the greater will be the flow of air between them, causing the formation of wind. In coastal areas, warm air that rises when the sun heats the land is replaced by the cooler air over adjacent waters, causing what is called a "sea breeze." At night, as the land cools, the process is reversed.

## There's a Storm Front Coming

Large blocks of air that have the same density—that is, temperature



Chris Gullikson

Summer thunderstorm forms in Wisconsin, June 2003.

and humidity—are called air masses. Because air masses do not mix easily with each other, a "front," or boundary, forms when two air masses with different densities meet. A cold front occurs when a cold air mass hits a humid, warm air mass and slides under it. As the water vapor in the warm air is pushed upward, it condenses into water droplets and forms clouds. Eventually the water droplets become too heavy, and they fall. Voila! A rainstorm. Precipitation resulting from this type of storm can often be torrential but short lived.

A warm front occurs when a moving air mass that is warm (instead of cold, as above) hits a more dense cold air mass and rides up over it. Again, the warm water vapor rises high enough to condense into droplets, clouds form, and, eventually, rain begins to fall. This type of storm usually covers a larger area, and, because warm fronts move more slowly than cold fronts,

precipitation typically lasts for a longer period of time and is not intense. When a warm and a cold air mass meet but neither is moving quickly, they can stall and become what is called a stationary front. If there is enough humidity in the air, clouds and rain will form along the front between the two air masses, and may last for a week or more.

### Types of Thunderstorms

Thunderstorms rely on moisture (that becomes clouds and rain), unstable air, and lift to form. Unstable air occurs more frequently when the air is warm. Heat causes more evaporation in the lower levels of the atmosphere. Because water vapor is lighter than dry air, warm moist air tends to rise like a helium-filled balloon. As it rises, the water vapor condenses into water droplets. The condensation process also releases heat, making the air even warmer and lighter, accelerating

its upward motion, creating what meteorologists call an "updraft." This rapidly rising air is very efficient at creating large amounts of rain, as well as disturbing the atmosphere's electrical field. Lightning is Nature's way of returning the electrical charges in the atmosphere to their normal balance.

Once a thunderstorm has formed, its severity is defined by the National Weather Service (NWS) according to the wind speeds and size of hail it produces. NWS data indicate that the typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. A thunderstorm is considered severe if any of the following criteria is met: wind gusts reach 57.5 mph or faster; hail measures 3/4 inch or bigger in diameter; and one or more tornadoes form. Of an estimated 100,000 thunderstorms that form each year, only about 10 percent are classified as severe.

Unlike tornadoes (which are rated on the Fujita Scale, see page 19) and hurricanes (which are rated on the Saffir-Simpson Scale, see page 20), thunderstorms do not have a numeric classification scale. Weather radar screens use color to indicate the intensity of precipitation in thunderstorms. Rain, snow, sleet, and hail are displayed as different colors as they reflect back different amounts of energy to weather radar screens.

### Single-cell Storms

Thunderstorms are made up of pockets of rapidly rising air, often called "cells" by meteorologists. Most thunderstorms are single-cell downpours of moderate to heavy rainfall that last .5-1 hour. Single-cell thunderstorms may include small hail, thunder, and lightning.

## Multicell Storms

Multicell storms are composed of a series of single-cell storms that form repeatedly. Multicell storms last longer than single-cell storms and typically produce precipitation that is moderate to heavy. Hail is a common component of multicell storms, and short-lived tornadoes can be spawned by these storms. Squall lines are multicell clusters that move over areas of several hundred miles or more.

## Supercell Storms

The biggest, strongest, and longest-lasting thunderstorms are known as supercells. These thunderstorms contain a spiraling column of air called a mesocyclone that rises in the heart of the storm. Supercell storms can generate both tornadoes and nontornadic microbursts that can last for hours and move hundreds of miles before dissipating.

## Mesoscale Convective Complexes (MCCs)

MCCs are made up of large clusters of persistent, (usually) nighttime thunderstorms that typically form as isolated late-afternoon thundershowers in the eastern Rockies and western Plains. When a number of these clusters merge, they form large, highly destructive storm systems that can last 6 hours or more, typically peaking around midnight. MCCs can cover multistate regions with torrential downpours, lightning, and damaging winds that sometimes become tornadoes.

## Hail and Lightning

Hail forms when water droplets within a storm are carried aloft by strong updrafts to an altitude at



Cloud-to-ground lightning during thunderstorm in Norman, Oklahoma (NOAA Photo Library).

which they freeze. When the ice particles grow so large that they become too heavy to be supported by the updraft, they fall to the ground in the form of hailstones. Large hailstones are created when falling stones get caught up in more than one updraft. They accumulate more water with each cycle through the storm cloud. Large hailstones can fall at speeds of 100 mph or more, sometimes causing significant property damage.

Lightning commonly occurs in strong summer storms and each year strikes the Earth 20 million times. When electrical energy between positively and negatively charged areas builds up, it is discharged as lightning. Lightning can occur within a cloud, between clouds, and between a cloud and the ground. Cloud-to-ground lightning strikes are responsible for starting many wildfires in the western United States.

## High Winds

Severe thunderstorms don't just produce serious flooding; their associated winds also can be damaging to people and property. Straight-line winds (such as downbursts or microbursts) or rotating columns of wind (such as tornadoes and hurricanes) are responsible for significant property damage and loss of life every year.

## Downbursts

Downbursts are strong, concentrated downdrafts of wind that often appear during thunderstorms. Extreme downbursts can cause winds of 100 mph or more.

## Wind Safety Resources on the Web

FEMA's tornado safety site:  
[www.fema.gov/hazards/tornadoes/](http://www.fema.gov/hazards/tornadoes/)

FEMA's thunderstorm safety site:  
[www.fema.gov/hazards/thunderstorms/](http://www.fema.gov/hazards/thunderstorms/)

FEMA's safe room site:  
[www.fema.gov/mit/saferoom/](http://www.fema.gov/mit/saferoom/)

National Weather Service site:  
[www.nws.noaa.gov/](http://www.nws.noaa.gov/)

National Storm Shelter Association site:  
[www.nssa.cc/](http://www.nssa.cc/)

## Microbursts

Microbursts are sudden gusts of high wind that sometimes are generated within downbursts. Microbursts are concentrated in small areas and can reach speeds of more than 150 mph. This wind phenomenon is most likely to occur in the Rockies and the Eastern United States.

## Derechos

Derecho—Spanish for "straight ahead"—is the term used to describe straight-line winds that come as a series of downbursts generated by squall lines—lines of multi-cell clusters. Derechos produce winds stronger than 58 mph and spread a swath of damage several hundred miles in length. These storms are most common in the spring and summer when squall lines create one downburst after another as the storms travel eastward across the Great Plains states and into the Midwest.

## Tornadoes

Tornadoes are rotating columns of air that extend from a thunderstorm to the ground. Water spouts are tornadoes that form over warm water but can move onshore to do damage to coastal areas.

Tornadoes travel at an average forward speed of 30 mph but may move forward as rapidly as 70 mph. Winds rotating inside tornadoes have been measured at more than 250 mph. According to the NWS, although tornadoes occur in many parts of the world, they are most prevalent in the United States and occur most often east of the Rocky Mountains during the spring and summer months.

Tornado severity is measured by the Fujita Scale (see table below). According to *Thunderstorms, Tornadoes, Lightning: Nature's Most Violent Storms* (find this at [www.nws.noaa.gov/om/brochures/ttl.pdf](http://www.nws.noaa.gov/om/brochures/ttl.pdf)), 88 percent of tornadoes are classified as weak, with winds of 112 mph or less and lasting 1-10 minutes or longer. Approximately 11 percent of all tornadoes are classified as strong, are made up of winds ranging from 113 to 206 mph, and last 20 minutes or longer. The most damaging tornadoes are the 1 percent that are classified as violent. Violent tornadoes pack winds of 207

mph or greater, can last for more than an hour, and are responsible for 70 percent of all tornado deaths.

## Tropical Cyclones

Tropical cyclones, hurricanes that form in the Atlantic Ocean and typhoons that form in the Pacific Ocean, are the most destructive category of storm systems. As winds pick up speed, the designation of the cyclone changes (see the sidebar on page 20).

Most tropical cyclones that form never become hurricanes, and, of those that do, few make landfall. But it isn't necessary for the eye of a

### Fujita Scale

Scale	Wind Speed (mph)	Typical Damage
<b>F0</b>	Less than 73	Light damage. Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
<b>F1</b>	73-112	Moderate damage. Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
<b>F2</b>	113-157	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
<b>F3</b>	158-206	Severe damage. Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
<b>F4</b>	207-260	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
<b>F5</b>	261-318	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yards); trees debarked; incredible phenomena will occur.

Table taken from the NWS NOAA web site ([www.spc.noaa.gov/faq/tornado/f-scale.html](http://www.spc.noaa.gov/faq/tornado/f-scale.html))

## Tropical Cyclone Designations

<b>Tropical Depression</b>	An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph or less.
<b>Named Tropical Storm</b>	An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39-73 mph.
<b>Hurricane and Typhoon</b>	An intense tropical weather system with a well-defined circulation and maximum sustained winds of 74 mph or more. Hurricanes are called "typhoons" in the Western Pacific. These are tropical cyclones with wind speeds of 74-149 mph.
<b>Major Hurricane</b>	An intense hurricane (category 3, 4, or 5 on the Saffir-Simpson Scale) with surface winds of at least 111 mph.
<b>Super Typhoon</b>	A typhoon with maximum sustained winds of 150 mph or greater (equivalent to a category 4 or 5 on the Saffir-Simpson Scale).

tropical cyclone to pass over land for wind damage or flooding to occur. Precipitation from huge tropical air masses frequently moves far inland, causing flooding in areas hundreds of miles from the coast. In fact, some of the most severe flooding associated with tropical cyclones has occurred from weaker storms such as Hurricane Juan in 1985, Tropical Storm Alberto in 1994, and Tropical Storm Allison in 2001. Hurricane severity is measured by the Saffir-Simpson Scale (see below).

Most hurricanes form during the summer and fall months. June 1 through November 30 is designated as hurricane season along the Atlantic Coast and Gulf Coast of the United States. Although the hurricane season for the Pacific Ocean runs May 15-November 30, a number of damaging

typhoons have formed in the Pacific at other times of year: Typhoon Fern in December 1996, Super Typhoon Paka in December 1997, Super Typhoon Mitag in February 2002, and Super Typhoon Pongsana in December 2002. See "Hurricane Watch" on pages 20-25 of *Watermark*, 2003, No.2 for an analysis of Atlantic and Pacific hurricane activity since 1993.

## Summer Weather Contributors

Precipitation, wind, lightning, hail, flooding, and storm surge are aspects of summer weather that can forecast disaster for property owners across the nation. There are a number of weather phenomena that contribute to the development of the summer storms.

## ENSO

The El Niño/Southern Oscillation, or ENSO, is a global weather phenomenon that can have a significant effect on precipitation in the United States. The El Niño phase of this phenomenon was named by Peruvian fishermen who noticed the periodic appearance of warming surface temperatures in the Pacific Ocean around Christmas. El Niño is now understood to be the warm phase of a temperature oscillation in the Pacific Basin's water and atmosphere. Years with dominant El Niño events tend to produce heavy rain and snowfall in the Pacific Northwest during the winter and spring months.

La Niña, the cool phase of the temperature oscillation, is associated with a pool of unusually cold water in the Pacific Ocean. Years affected by La Niña are characterized by spring flooding and summer heat waves in the United States, while wetter than normal conditions prevail in the Philippines, and there is greater monsoon activity in Asia. Paradoxically, the incidence of Atlantic hurricanes is higher in La Niña years, and the hurricanes that form have a greater likelihood of becoming major threats to the continental United States and Caribbean Islands.

Summer La Niña heat waves do not exempt the affected areas from flooding. North Carolina was experiencing a drought when it was hit by Hurricane Floyd in 1999. In addition, dry summers increase the risk of wildfires, as was tragically demonstrated in San Bernardino County, California, on Christmas Day 2003. When rains finally fall on earth that has been denuded by fire, the unprotected soil can

## Saffir-Simpson Scale

Category	1	2	3	4	5
Maximum Sustained Wind Speed (Miles per Hour)	74-95	96-110	111-130	131-155	156+

become unstable, resulting in flooding, mudflows, and landslides. California has been particularly vulnerable to this wildfire/mudflow cycle.

## Southwest Monsoons

The North American Monsoon System (NAMS) is an atmospheric circulation over North America that stretches from Mexico into the Southwestern United States. During the summer months, winds blow humid air from the Gulf of Mexico or the Gulf of California east across the Southwest. When this moisture is pushed up the mountains and into high desert, its rising motion and condensation often develop into early-afternoon thunderstorms. Air cooled by these storms can flow down from the mountains and into the lower deserts, where it meets rising warm air. The collision of these two air masses regularly produces late-day and evening thunderstorms during the summer. The Southwest Monsoon season produces almost half of the precipitation that falls on Arizona and New Mexico.

When thunderstorms dump excessive precipitation on a small area, and particularly when the rain falls on dry ground such as that found in the deserts of the Southwest, this can result in localized flash floods—such as the flash flood that struck Las Vegas, Nevada, in July 1999, causing more than \$1.6 million in insured losses. Moisture from Eastern Pacific hurricanes can augment moisture flow into these storms, causing continuous heavy rains that can result in more widespread flooding. As NAMS thunderstorms decay, microbursts commonly develop, creating the

potential for wind and hail damage.

The monsoon season in the Southwest typically begins in late June or early July and lasts until mid-September.

## Alert Your Community to the Danger

Many coastal residents are aware of the wind and flood hazards associated with summer hurricanes. But how many inland property owners realize that summer thunderstorms also pose serious flood, tornado, lightning, and hail hazards? This issue's State Stats tables, pages 28-38, provide data for NFIP paid flood losses during the last 21 summers (June, July, and August). These numbers don't include uninsured losses, and only represent losses due to flooding. Of course, unrecorded damage has been done during the last 2 decades by other perils associated with summer thunderstorms. Losses due to wind, lightning, and hail are covered under a homeowner's insurance policy. However, insurance against flood damage must be purchased separately. Generally, there is a 30-day waiting period before new flood coverage takes effect, so waiting to purchase coverage after a flood watch is issued will be too late to put it in place before the floodwaters hit. The public needs to know about the insurance available to protect them against summer flood losses, and they need to know it now.

Consumers depend on people like you, the NFIP's stakeholders, to provide information about where, when, and how to protect themselves from dangerous situations such as flood-

ing and other summer weather hazards. You may not be an expert in meteorology or hydrology, but chances are good that you already know more about weather perils than most of the public. And, when communicating risks, there is no one better positioned to do this than someone who is living and working in the same town.

## Getting Started

Gather your resources and then make a plan. The first step is to collect national, state, and local statistics about thunderstorm damage to use in your outreach efforts. See the State Stats tables on pages 28-38 for summer flood loss statistics. In addition, there are a number of sites on the Internet that provide data about local flooding (see the Data Web Sites box below). Next, order copies of the NFIP's public awareness materials to distribute as part of your outreach campaign. Almost all of these materials are free of charge and can be ordered in quantity for direct mailings or distribution at

## Data Web Sites

Explore the NWS National Climatic Data Center (NCDC) site ([www.ncdc.noaa.gov/oa/ncdc.html](http://www.ncdc.noaa.gov/oa/ncdc.html)) for a variety of resources about storms. See the NCDC's Storm Data page ([www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms](http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms)) to collect data about flooding in a distinct location, during a specified time frame.

Information pertaining to Presidential Disaster Declarations for all perils also is available online ([www.fema.gov/library/drcys.shtm](http://www.fema.gov/library/drcys.shtm)).

public events (see the Campaign Resources sidebar below).

## Campaign Resources

- See the NFIP web site ([www.fema.gov/nfip/libfacts.shtml](http://www.fema.gov/nfip/libfacts.shtml)) for a list of flood-related consumer items, then visit [www.fema.gov/nfip/forms.shtml](http://www.fema.gov/nfip/forms.shtml) to download a public awareness materials order form.
- Check with your local Red Cross chapter or emergency services department to see what flood-related materials they have for you to distribute.
- The Association of State Floodplain Managers maintains a list of national, state, and local links on their web site ([floods.org/theorganization/links.asp](http://floods.org/theorganization/links.asp)).

Next, create a plan for informing your community about summer storm perils and financial protection from flood losses through the NFIP. Following are a few suggestions for local public awareness activities.

- Direct contact is the best way to communicate your message when it comes to community outreach and public awareness. Throughout the summer, offer to make presentations about flood hazards and storm preparedness to local business, service, and educational organizations.
- Provide a "summer storm information" presence at local consumer events such as fairs and mall expos. Or set up a display at your local library. Giving out NFIP public awareness publications at a booth can serve as an opener to conversations with consumers about flood risk and protection. Be sure to keep track of how many brochures you distribute for evaluation purposes.
- Contact news media and offer local summer flooding damage and insurance coverage statistics as well as experts who can be interviewed about summer storm preparedness. Offer radio stations simple public service announcements (PSAs) that can be read on-air before the weather report.
- Conduct direct mailings of NFIP literature to consumers as part of a summer storm preparedness campaign. Whenever possible, try to include local and regional data in the campaign materials you generate. You may decide to develop your own brochure or flyer so that you can tailor the information specifically to your community. Or you may just want to add a line about historical local summer flooding to the cover letter you use to accompany a direct mailing. Be sure to include a telephone number or business reply card with your literature so that you will have a feedback mechanism.
- Collaborate in your community outreach efforts with other local NFIP stakeholders. Community floodplain and emergency response officials have the best local information about hazards, protection, and preparedness. Local and regional insurance companies and professional associations can provide insurance expertise about coverage against flood, wind, lightning, and hail damage. Government and insurance industry professionals have a mutual interest in seeing that their communities are protected from summer storm damage.

- Web sites can be effective vehicles for reaching community members who surf the Internet. For example, the New York State Insurance Department web site contains a page specifically devoted to insurance coverage against perils associated with summer storms ([www.ins.state.ny.us/csmstorm.htm](http://www.ins.state.ny.us/csmstorm.htm)). Included on this page is a link to the New York State Disaster Preparedness Commission's web site that allows visitors to access a consumer guide that discusses how individuals can prepare for and recognize weather hazards and the actions to take should one occur ([www.nysemo.state.ny.us/PIO/publicsafety/Wxaware2000.html](http://www.nysemo.state.ny.us/PIO/publicsafety/Wxaware2000.html)).

## Final Phase

Measuring the success of an awareness campaign can be challenging. But when you invest time and resources into outreach, you'll want to determine that your efforts have been effective before you plan a repeat effort next year. The final phase of your public awareness outreach activities should include measurement of your efforts and evaluation of your achievements.

Was your article printed in the local paper? Were your PSAs broadcast by radio stations? Did you make presentations before community organizations or schools? How many brochures did you distribute? If you included a telephone number or business reply card with literature you distributed, you'll be able to keep track of the responses. Let us know what worked well in your community.

Watermark is committed to sharing successful tips with other program stakeholders. Send a copy of your plan, evaluation, and/or recommendations to Watermark Editor, NFIP Bureau and Statistical Agent, 7700 Hubble Drive, Lanham, MD 20706.

The NFIP's Community Rating System (CRS) provides guidance in planning for, implementing, and evaluating public awareness activities. Communities that participate in the CRS can realize substantial discounts on residents' annual flood insurance premiums by undertaking creditable activities—such as public awareness campaigns—to mitigate flood losses.

The Summer 2002 Watermark (pages 1, 4-7) includes a description of a number of CRS Public Information activities that might be ideal for use in your community. Or, explore pages 300-1 through 360-8 of the *CRS Coordinator's Manual* (accessible online at [www.fema.gov/pdf/nfip/crsentire.pdf](http://www.fema.gov/pdf/nfip/crsentire.pdf)) for more details about public awareness activities that earn CRS credit.

### Making Summer Safer

Now you are ready to begin. There are thousands of people across the United States and in the U.S. territories who, like you, want to make a difference in protecting their communi-

ties against summer storm damage. Partner with as many of them as you can to share information and resources.

You won't be able to ensure that summertime is as easy as the song proclaims, but if a summer storm leaves your community devastated, you can rest assured that you've given consumers in your town a head start in rebuilding their lives and recovering their livelihoods. 

*Lynd Morris began working with the NFIP as a communications specialist in 1983. She has been the writer and associate editor of the Watermark for the last 6 years.*

## Are You FloodSmart?

Mary Jo Vrem, FEMA

Good communication is one way that FEMA is being proactive in helping citizens plan for man-made and natural hazards. How? FEMA has a new partnership with a team of marketing, advertising, public relations, and web specialists at J. Walter Thompson (JWT). They are developing an integrated, national campaign that will encourage the American public to properly prepare themselves for the high risk of flooding. The goal—convince Americans that it is important to purchase flood insurance policies and direct them to insurance agents.

### The New Campaign—Media

I hope you've seen the new NFIP commercials first aired in March and April on cable TV networks. These commercials focus on two themes:

- Homeowners insurance covers an asteroid hitting your house, but it does not cover floods.

- Don't wait too long! You need to be protected from floods, so buy NFIP flood insurance now.

### New Consumer-Focused Web Site

The campaign has expanded nationally. It includes, as just one of its elements, a new web site ([www.floodsmart.gov](http://www.floodsmart.gov)) dedicated to supporting



the direct-response advertising that will blanket the nation in addition to targeting high-risk flood areas.

Consumers are encouraged to visit this new web site to further understand the consequences of floods and the importance of coverage. They will be directed to agents in their area for more information and to purchase flood coverage. Visitors to the site will also be able to use mapping technologies to assess their level of risk, discover what's happening in their local community; and learn more about floods, flood insurance, and the NFIP.

Eventually, the site will also incorporate unique content and features targeted specifically to policyholders and agents. The site will be a useful tool and great resource for consumers and professionals in the industry. The web address for the site is: <http://floodsmart.gov/>. 

*Mary Jo Vrem is the Acting Chief of the Risk Management Marketing Section of the FEMA Mitigation Division. She has been with FEMA for 10 years.*

# Offering a Helping Hand

When it comes to disaster, emergency managers and community-based and faith-based organizations (CBOs and FBOs) have long operated within certain traditional roles. Emergency managers typically focus on emergency operations and technical solutions and are often burdened with too much to do, with too few resources. It's not easy to maintain an adequate state of preparedness and provide an appropriate disaster response. To meet their community's needs, emergency managers often work with CBO and FBO volunteers during and after a disaster. It's a unique challenge with a unique solution.

It's a win-win situation. Volunteers help communities recover from disaster, while emergency managers can offer a wide variety of training and contacts to a CBO or FBO (see below).

## Partnering With FEMA

FEMA has been working with CBOs and FBOs for a long time in disaster response and rebuilding. It's one of our best partnerships. We want to make sure that communities and the volunteer organizations can work together as well. From that goal sprung the Community-Based Pre-Disaster Mitigation for Community- and Faith-Based Organizations curriculum.

## Training Outside the Box

It takes as many people as available to build a safer community. This is what 10 communities across the country discovered in the summer of 2002, when they joined in a grand experiment to implement community-based pre-disaster mitigation (PDM). While the aim was serious—to lessen the impact of disaster on property and lives—all 10 communities reported experiencing a great deal of humor,

learning, and heart-warming human interaction in the process.

The challenge was unusual. Each community was asked by FEMA to build a team of emergency managers and volunteers from community-based and faith-based organizations to design and complete a grassroots mitigation project in 90 days or less. The results were astonishing. Following is just a sample of what happened.

- In Ouachita Parish, Louisiana, hundreds of citizens turned out for an enormous mitigation, community service, and disaster preparedness event.
- Members of the Eastwick Project Area Committee took a sober look at the reality of clearing a polluted waterway in their historic Philadelphia suburb.
- In Evansville, Indiana, seasoned mitigation volunteers explored new territory in introducing mitigation to economically disadvantaged neighborhoods.
- A small, intrepid team planted the seed of community volunteerism and helped protect a family from damaging monsoon storms in Arizona's Gila River Indian Community.
- Volunteers from the Windham Regional Commission in southeastern Vermont retrofitted two day-care centers against the risk of earthquake damage.
- More than 200 volunteers came forth in Polk County, Missouri, to mitigate potential flooding by clearing debris-clogged drainageways.

## A Complementary Partnership

Emergency managers can provide access to:

- Government mitigation grant programs
- Government-based expertise and technical know-how
- An in-depth understanding of local risks and mitigation needs
- Disaster status reports

CBOs and FBOs offer:

- Volunteer staff to implement programs
- An awareness of the needs of the community's most vulnerable populations
- Credibility within the community
- The power of persuasion and community influence
- The ability to make decisions outside of government processes

The summer 2002 nationwide community-based PDM project required everyone involved to think outside the box and interact with each other in nontraditional ways. Emergency managers were asked to focus on the benefits of partnering with volunteers, rather than emergency operations and technical solutions. CBOs and FBOs were asked to engage in disaster risk reduction, in contrast to their typical post-disaster response and recovery role.

### **The Outcome: A Training Curriculum**

Out of the nationwide PDM initiative and other programs, FEMA developed the Community-Based Pre-Disaster Mitigation curriculum. The curriculum addresses many of the hurdles faced by emergency managers and the volunteer organizations with which they work as they prepare for disasters. These hurdles include the different missions and hierarchies each CBO, FBO, and emergency department brings to the table. The lessons learned and training needs identified by the summer 2002 PDM projects form the foundation of the new curriculum.

The Community-Based Pre-Disaster Mitigation curriculum is now available on the FEMA web site ([www.fema.gov/tab\\_education.shtm](http://www.fema.gov/tab_education.shtm)). The materials offered at this site have been designed to involve emergency departments and CBOs/FBOs in pre-

disaster mitigation activities at the local level.

The goals of the curriculum are to enable participants to discover the role that CBOs/FBOs can play in mitigation activities, determine possible mitigation projects in which they might engage, and better understand ways that CBOs/FBOs and emergency managers can work



together. In order to engage both the emergency management and CBO/FBO communities, the curriculum consists of two distinct products, one tailored to emergency managers and the other to members of community- and faith-based organizations.

The curriculum has been designed to be conducted with a minimal amount of materials and equipment. Training modules are structured so that organizations can arrange the material to meet their particular needs and circumstances. There is also a comprehensive resource guide that includes materials and information to support each of the training modules. The materials will be available on CD in the near future.

The curriculum can be offered as an intensive 3-day

training course or over several weeks in a less formal arrangement.

### **Coordinate and Communicate**

If your community chooses to establish a community-based mitigation program, or to enhance an already existing partnership, it is critical that all participants understand the importance of ongoing coordination and consistent communication with each other. It's the true sense of partnership that makes this kind of relationship work.

More information about the communities that participated in the 2002 training initiative and their experiences is available from FEMA. If you have questions or feedback about the curriculum, please contact Terry Brill, Training Coordinator for FEMA's Mitigation Division, by sending an email to him at [terry.brill@dhs.gov](mailto:terry.brill@dhs.gov) or by calling 202-646-2940. 

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## Sign Up Now for Summer Training at EMI

FEMA's Emergency Management Institute (EMI) located at the National Emergency Training Center (NETC) in Emmitsburg, Maryland, is offering several more HAZUS-MH (Hazards in the U.S.-Multihazard) resident courses this summer.

To apply, submit a FEMA Form 75-5 (General Admission Application) for each course offering, with the student signature, and supervisor or sponsoring office signature, through the State emergency management training office, to the NETC Admissions Office, fax: 301-447-1658. Forms can be found at FEMA's web site ([training.fema.gov/EMIWeb/EMICourses/index.asp](http://training.fema.gov/EMIWeb/EMICourses/index.asp)). For more information about courses and enrollment, contact the course manager, Lillian Virgil, by e-mail ([lillian.virgil@dhs.gov](mailto:lillian.virgil@dhs.gov)) or telephone (301-447-1490).

The following courses will be held at EMI in Emmitsburg, Maryland, on the dates listed. Students are enrolled on a first-come, first-served basis.

### ***E179 HAZUS-MH for Post-Disaster Mitigation Planning—August 9-12, 2004***

Course Description: A 4-day course designed to teach participants how to use HAZUS-MH for damage and loss estimation after a disaster.

Audience: Recommended for FEMA Mitigation staff, Mitigation Disaster Assistance employees, and State building science and GIS professionals.

Prerequisites: A strong working knowledge of ArcGIS with Spatial Analyst Extension is recommended.

### ***E296 HAZUS-MH/DMA 2000 Risk Assessment Training—August 23-25, 2004***

Course Description: A 3-day course designed to focus on HAZUS-MH risk assessment methodology, data requirements, and applications to assist local communities and other organizations in addressing their disaster-related risk assessment needs. The course includes technical presentations on risk assessment methodology and hands-on exercises using HAZUS-MH.

Audience: Recommended for FEMA Regional staff and State and local emergency management planners.

Prerequisites: The E313 Basic HAZUS-MH Course is mandatory to register for this course. E317 Comprehensive Data Management for HAZUS-MH and E308/L308 Using HAZUS for Mitigation Planning are both recommended.

### ***E313 Basic HAZUS-MH—September 13-17, 2004***

Course Description: A 4-day course designed to provide Federal, State, and local GIS specialists in emergency management with the skills and knowledge to use HAZUS-MH. HAZUS-MH uses state-of-the-art GIS software (ArcGIS) to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure, allowing users to estimate the impacts of hurricanes, floods, and earthquakes to populations.

Audience: Recommended for State and local emergency managers and planners; GIS specialists responsible for risk assessment activities; regional personnel responsible for earthquake, wind, and flood mitigation and response activities; and other Federal agencies with a need to conduct risk assessment.

Prerequisites: Attendees must have a strong working knowledge of multihazard applications of HAZUS toward mitigation, recovery, and risk management.

## EENET Wins Awards

Last fall, FEMA's Emergency Education Network (EENET), operated by the U.S. Fire Administration at the Emergency Management Institute in Emmitsburg, Maryland, was awarded prestigious Silver Axiem Awards for two training videos that aired nationally in 2002.

Since 1998, Axiem Awards have honored companies and organizations that have produced the very best in all forms of electronic media. According to its sponsors, the Axiem Award "sets the standard of creative communication and production excellence in electronic media by establishing a 'level playing field' for all entries. Each entry is judged solely on its own merits against an absolute standard of excellence established for each Medium, Market, and Category."

More than 1,200 entries from around the world competed for the 2003 honors and were judged by a panel of industry leaders. Among the Silver and Copper Axiem winners for 2003 were ABC 8 WMTW; Atlantic Video, Inc.; the Australian Children's Television Foundation; CBN International; Comcast Media Services; Cox Communications; the FCC; the IBM Center for Advanced Learning; Jaguar Educational; KMGH-TV; Mediaworks; Nevada Public Radio; San Diego State University; The Vanguard Group; Time Warner Cable; and Verizon Online.

One of EENET's Silver Axiem Awards was given for a two-part training video program that focused on the



*Emergency Management personnel respond to flooding in Franklin, Virginia, in September 1999.*

city of Franklin, Virginia, and how it rebounded both economically and in human terms after experiencing catastrophic flood damage in September 1999. Airing near the end of 2000, the first part of the program outlined the damage incurred and the mitigation activities that were implemented, highlighting the responses of emergency management personnel and city leaders to the flooding. The second part of the program aired in early December 2002. This part addressed the community's Hazard Mitigation Plans, the importance of flood insurance, Hazard Mitigation Grant Program buyouts, and recovery from flood disasters.

A second Silver Axiem Award went to an EENET two-part training video broadcast that highlighted the incident command response and lessons

learned from the World Trade Center and Pentagon terrorist attacks, the downing of the hijacked plane in Pennsylvania, and the anthrax attacks in Florida. The broadcast included observations from New York City, Arlington, Virginia, and Shanksville, Pennsylvania, as well as from fire officials, a rescue service official from Boca Raton, Florida, and a colonel from the Military District of Washington, D.C.

Since its pilot broadcast in 1981, EENET has produced training and education programming on such topics as public safety, emergency management, disaster response training, continuing education, and professional development. All EENET satellite programs can be accessed on C-band and Ku-band satellite dishes. 



## State Stats

### *Summer Loss Data*

In each issue of *Watermark* we try to include at least one analysis of NFIP policy or loss data that Program stakeholders can use to tailor their marketing and public awareness efforts to reflect flood risks in their area. You can cite statistics from these data tables in cover letters, flyers, and advertisements, or you can give them to the news media to provide a historical context for local flooding and to alert the public about the probability of future flood risks. The tables in this issue present NFIP summer loss data. Statistics are drawn from losses recorded in June, July, and August between June 1, 1983, and August 31, 2003 (data as of January 31, 2004).

Summer storms often affect entire regions. Therefore, the following information is organized by FEMA Region. During the 21-year analysis period, some areas—such as those in the Midwestern and Plains states (FEMA Regions V, VI, VII, and VIII)—have experienced their heaviest flood seasons in the late spring and early summer months. Although other areas, such as the New England, Mid-

Atlantic, Gulf Coast, and Pacific Coast states (FEMA Regions I, II, III, IV, IX, and X), typically suffer more significant flood losses during other seasons, summer is rarely flood-free even in these areas.

The text that precedes each region's loss distribution table highlights many of the summers in which the most severe flood damage was sustained by NFIP policyholders. The tables break out paid flood losses by occupancy type, flood zone, and selected policy forms (Preferred Risk Policy, Residential Condominium Building Association Policy, and Mortgage Portfolio Protection Program Policy). These tables demonstrate that even policyholders in moderate-risk B, C, and X zones experience summer flood losses.

Summer can be a great time for relaxing—but don't let consumers in your community relax their flood coverage. Encourage them to be FloodSmart, and remind them that every zone is a flood zone, every season is flood season.

## FEMA Region I: NFIP Summer Flood Losses

Nearly 20 percent of the losses paid since 1983 in FEMA Region I states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) have been the result of summer flooding.

Although flood losses during the summer of 1983 were light, flooding in June 1984 resulted in more than 130 paid losses in New England.

The next 5 summers produced an average of 43 paid losses in Region I each year. However, in August 1991, Hurricane Bob caused Region I's worst summer flood damage of the last 21 summers—2,897 losses and nearly \$50.8 million in claim payments. Hardest hit were Region I's coastal states.

State	Summer 1991	
	Paid Losses	Claim Payments (in millions)
CT	39	\$0.2
ME	21	\$0.5
MA	2,396	\$43.7
RI	437	\$6.3

The next summer, flooding in Connecticut caused 206 NFIP losses that cost more than \$3.4 million in claim payments. Flood losses

decreased during the next 5 summers, averaging only 27 paid losses each summer. But severe storms that swept across the Midwest and into New England during summer 1998 produced near-record rainfalls that resulted in extensive flooding in Region I. As a result, almost \$6.6 million was paid on nearly 540 NFIP losses.

Connecticut suffered significant flood losses again in August 2000, when 89 NFIP policyholders experienced damage that exceeded \$1.8 million in claim payments.

NFIP flood losses in Region I have been relatively light during the last 3 summers, except for Vermont, where nearly \$1 million was paid on 44 losses that resulted from flooding in June 2002.

Since 1983, summer flooding in Region I has produced 4,520 paid losses requiring more than \$70.5 million in claim payments.

State	Summer 1998	
	Paid Losses	Claim Payments (in millions)
CT	25	\$0.2
ME	40	\$0.5
MA	335	\$4.0
NH	74	\$0.5
RI	437	\$6.3
VT	30	\$0.6

## FEMA Region I: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	CT	MA	ME	NH	RI	VT
<b>Paid Losses</b>	519	3,073	94	98	531	205
<b>Claim Payments</b>	\$6,965,846	\$51,190,154	\$1,226,563	\$632,116	\$7,698,161	\$2,813,404
<b>Average Claim Payment</b>	\$13,422	\$16,658	\$13,049	\$6,450	\$14,497	\$13,724
<b>Occupancy</b>						
Single Family						
Paid Losses	336	2,560	67	77	359	129
Claim Payments	\$2,379,023	\$39,221,764	\$655,009	\$480,114	\$2,903,734	\$1,338,976
2 - 4 Family						
Paid Losses	39	151	7	6	22	13
Claim Payments	\$268,489	\$1,533,961	\$47,340	\$16,941	\$185,503	\$122,777
Other Residential						
Paid Losses	35	65	0	3	13	4
Claim Payments	\$249,775	\$1,224,421	\$0	\$21,404	\$136,043	\$110,078
Non-Residential						
Paid Losses	109	297	20	12	137	59
Claim Payments	\$4,068,559	\$9,210,007	\$524,214	\$113,656	\$4,472,880	\$1,241,572
<b>Zone</b>						
A Zone						
Paid Losses	291	2,050	62	54	317	130
Claim Payments	\$3,374,987	\$33,471,174	\$817,796	\$404,490	\$4,750,186	\$1,979,721
V Zone						
Paid Losses	8	502	1	0	132	0
Claim Payments	\$31,106	\$10,073,788	\$16,487	\$0	\$2,126,620	\$0
B, C and X Zone						
Paid Losses	217	476	20	35	81	61
Claim Payments	\$3,534,940	\$7,211,868	\$363,949	\$216,929	\$772,255	\$762,409
Other Zone						
Paid Losses	3	45	11	9	1	14
Claim Payments	\$24,813	\$433,323	\$28,331	\$10,697	\$49,100	\$71,274
<b>Special Policies</b>						
PRP						
Paid Losses	26	74	4	11	7	12
Claim Payments	\$102,525	\$410,448	\$11,461	\$40,648	\$44,389	\$156,237
RCBAP						
Paid Losses	0	14	0	0	3	0
Claim Payments	\$0	\$112,569	\$0	\$0	\$42,459	\$0
MPPP						
Paid Losses	0	0	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0	\$0	\$0

## FEMA Region II: NFIP Summer Flood Losses

Summer flooding in FEMA's Region II states and territories (New Jersey, New York, Puerto Rico, and the Virgin Islands) has produced at least \$1 million in claim payments in this region every summer but one (1985) since 1983.

Flooding during August 1983 caused 255 losses in New Jersey, New York, and Puerto Rico that reached nearly \$1 million in claim payments. The

following summer, New Jersey and New York were hit by the worst summer flooding experienced by these states during the analysis period.

Two summers later, 205 losses in both states during July and August resulted in claim payments that climbed to \$1.6 million. July flooding in 1988 resulted in 165 losses in both states that cost more than \$1.1 million. That summer, Puerto Rico suffered its worst summer flooding of the analysis period with 106 paid losses.

The next summer, flooding was responsible for nearly \$2.8 million in claim payments for the 377 losses paid in both states. In 1991, summer flooding in New Jersey and New York produced 297 paid losses requiring almost \$2.3 million in payments. The next summer, 194 paid losses in these states cost nearly \$2.6 million. Flooding in New Jersey during July 1994 caused 112 paid losses that required more than \$1.1 million in claim payments. The following July, flooding in both states produced 93 paid losses that cost more than \$1.4 million in claim payments.

In the summer of 1996, Hurricane Bertha hit the Eastern Seaboard and swept through New Jersey and New York.

Thunderstorms followed by rainfall from the remnants of Hurricane Danny brought flooding to the northeastern United States during July 1997.

New Jersey produced 528 NFIP paid losses that summer that cost nearly \$6 million in claim payments.

In June 1998, a nearly stationary thunderstorm drenched New York, producing 254 flood losses requiring nearly \$3.2 million in claim payments. Floods during August 1999 resulted in 116 losses in New Jersey and New York that required in excess of \$2 million in claim payments.

Several low pressure systems during August 2000 brought excessive rainfall to both states.

The remnants of Tropical Storm Allison drenched New Jersey and New York in June 2001. More than \$2.4 million was needed to pay 113 NFIP losses.

Last year, unseasonably cool, wet weather all summer produced 236 losses in New Jersey and New York, requiring more than \$1.8 million in claim payments.

Altogether, Region II policyholders have received more than \$58.7 million in payments for 5,626 claims resulting from summer flooding since 1983. Only 1 summer during the analysis period has passed without NFIP losses paid in either Puerto Rico or the Virgin Islands.

State	Summer 1996	
	Paid Losses	Claim Payments (in millions)
NJ	268	\$4.3
NY	184	\$2.4

State	Summer 1984	
	Paid Losses	Claim Payments (in millions)
NJ	182	\$1.3
NY	676	\$3.7

State	Summer 2000	
	Paid Losses	Claim Payments (in millions)
NJ	232	\$4.0
NY	80	\$1.3

### FEMA Region II: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	NJ	NY	PR	VI
<b>Paid Losses</b>	2,693	2,537	378	18
<b>Claim Payments</b>	\$32,240,058	\$24,031,157	\$2,398,496	\$62,244
<b>Average Claim Payment</b>	\$11,972	\$9,472	\$6,345	\$3,458
<b>Occupancy</b>				
Single Family				
Paid Losses	1,724	1,739	285	4
Claim Payments	\$10,210,542	\$11,083,694	\$909,453	\$6,561
2 - 4 Family				
Paid Losses	302	332	8	3
Claim Payments	\$1,663,920	\$1,623,494	\$33,064	\$19,316
Other Residential				
Paid Losses	66	85	0	0
Claim Payments	\$626,915	\$658,298	\$0	\$0
Non-Residential				
Paid Losses	601	381	85	11
Claim Payments	\$19,738,681	\$10,665,671	\$1,455,980	\$36,366
<b>Zone</b>				
A Zone				
Paid Losses	1,914	1,194	285	10
Claim Payments	\$17,950,148	\$9,397,635	\$1,317,180	\$30,815
V Zone				
Paid Losses	10	29	0	0
Claim Payments	\$96,628	\$986,594	\$0	\$0
B, C and X Zone				
Paid Losses	682	901	86	8
Claim Payments	\$12,994,743	\$11,629,738	\$1,033,293	\$31,428
Other Zone				
Paid Losses	87	413	7	0
Claim Payments	\$1,198,540	\$2,017,190	\$48,024	\$0
<b>Special Policies</b>				
PRP				
Paid Losses	86	174	10	0
Claim Payments	\$691,971	\$1,249,040	\$123,536	\$0
RCBAP				
Paid Losses	16	4	0	0
Claim Payments	\$100,210	\$46,219	\$0	\$0
MPPP				
Paid Losses	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0

## FEMA Region III: NFIP Summer Flood Losses

Summer is a damaging flood season for FEMA's Mid-Atlantic states (Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia).

Pennsylvania was hit by a wet summer in 1983. More than 400 paid losses in the state required nearly \$2.7 million in claim payments. The next summer brought even heavier flooding.

Although July floods in 1985 produced more than 160 claims in

Pennsylvania, summer flooding remained relatively light in Region III until 1989, when 591 losses in Delaware, Maryland, Pennsylvania, Virginia, and West Virginia required more than \$5.8 million in claim payments.

The next 6 years produced an average of 242 claims for Region III each summer. However, that trend ended in 1996 when a series of slow-moving thunderstorms in June produced flash floods in Pennsylvania and, in July, Hurricane Bertha brought serious flooding to several additional Region III states.

In 1998, West Virginia again was hit by serious summer flooding, requiring almost \$6.5 million in payments for nearly 400 losses in June and July.

The first summer of the new millenium was marked by heavy flooding in Pennsylvania that produced 253 paid losses requiring nearly \$4.7 million in claim payments.

In June 2001, Region III experienced its most severe summer losses during the analysis period when Tropical Storm Allison swept north from Texas and into West Virginia, Virginia, and Pennsylvania. Less than a month later, several clusters of thunderstorms drenched West Virginia again.

Region III states were subjected to a series of summer thunderstorms in 2003 that produced hundreds of losses.

Between June 1, 1983, and August 31, 2003, there were 8,123 paid NFIP losses in the region during the summer months of June, July, and August, that resulted in nearly \$119.5 million in claim payments

Summer 1984		
State	Paid Losses	Claim Payments (in millions)
MD	130	\$2.3
PA	497	\$4.3

Summer 1996		
State	Paid Losses	Claim Payments (in millions)
PA	629	\$14.5
WV	267	\$2.1

Summer 2001		
State	Paid Losses	Claim Payments (in millions)
PA	539	\$24.5
VA	123	\$2.0
WV	683	\$12.1

Summer 2003		
State	Paid Losses	Claim Payments (in millions)
PA	356	\$3.7
WV	215	\$3.2

## FEMA Region III: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	DC	DE	MD	PA	VA	WV
<b>Paid Losses</b>	1	151	431	4,376	1,091	2,073
<b>Claim Payments</b>	\$1,156	\$1,935,681	\$7,017,886	\$70,512,312	\$11,844,506	\$28,217,887
<b>Average Claim Payment</b>	\$1,156	\$12,819	\$16,283	\$16,113	\$10,857	\$13,612
<b>Occupancy</b>						
Single Family						
Paid Losses	1	98	249	3,135	745	1,739
Claim Payments	\$1,156	\$560,933	\$1,371,192	\$28,477,486	\$5,614,062	\$20,232,981
2 - 4 Family						
Paid Losses	0	2	8	177	41	45
Claim Payments	\$0	\$3,766	\$39,321	\$1,388,292	\$382,862	\$542,463
Other Residential						
Paid Losses	0	11	22	159	69	31
Claim Payments	\$0	\$99,091	\$361,253	\$5,205,318	\$565,834	\$689,447
Non-Residential						
Paid Losses	0	40	152	905	236	258
Claim Payments	\$0	\$1,271,891	\$5,246,121	\$35,441,215	\$5,281,749	\$6,752,996
<b>Zone</b>						
A Zone						
Paid Losses	0	81	244	2,402	723	1,390
Claim Payments	\$0	\$1,301,770	\$4,942,611	\$45,570,317	\$8,140,607	\$18,927,771
V Zone						
Paid Losses	0	4	2	0	3	0
Claim Payments	\$0	\$10,619	\$15,015	\$0	\$59,082	\$0
B, C and X Zone						
Paid Losses	1	60	172	1,376	339	564
Claim Payments	\$1,156	\$566,724	\$1,980,607	\$20,741,083	\$3,558,605	\$8,551,364
Other Zone						
Paid Losses	0	6	13	598	26	119
Claim Payments	\$0	\$56,568	\$79,654	\$4,200,912	\$86,212	\$738,752
<b>Special Policies</b>						
PRP						
Paid Losses	1	6	31	277	84	168
Claim Payments	\$1,156	\$42,303	\$211,254	\$2,841,647	\$619,283	\$2,569,544
RCBAP						
Paid Losses	0	0	3	8	7	0
Claim Payments	\$0	\$0	\$5,779	\$2,318,204	\$27,448	\$0
MPPP						
Paid Losses	0	0	0	0	0	3
Claim Payments	\$0	\$0	\$0	\$0	\$0	\$40,606

## FEMA Region IV: NFIP Summer Flood Losses

More than 15 percent of the nation's paid summer flood losses since 1983 have come from FEMA Region IV Southeastern states (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee).

The most devastating Region IV summer losses since 1983 occurred when Hurricane Elena hit Florida in August 1985. More than \$69 million was required for 6,710 paid losses.

Paid losses in Region IV averaged 250 each of the next 6 summers. However, in 1992, Florida suffered 4,364 insured losses requiring more than \$150.2 million in claim payments following severe June thunderstorms and as a result of Hurricane Andrew, which slammed into the state in August.

Flooding in North Carolina in August 1993 produced 737 losses that required nearly \$11.4 million in claim payments. The next summer, flood losses throughout the region were severe, especially after Tropical Storm Alberto hit in July.

Storms the following summer produced even more devastating flood losses.

In July 1996, Hurricane Bertha hit the Carolina coast, causing flooding that resulted in

Summer 1994		
State	Paid Losses	Claim Payments (in millions)
AL	204	\$4.3
FL	439	\$6.2
GA	958	\$37.6
NC	118	\$1.4

Summer 1995		
State	Paid Losses	Claim Payments (in millions)
FL	153	\$4.2
GA	129	\$1.1
MS	311	\$2.9
NC	344	\$7.8
SC	173	\$1.9

1,575 losses in Georgia and North Carolina that required nearly \$16.8 million in claim payments. In July 1997, Tropical Storm Danny stalled over Alabama before moving northeast. Nearly \$20.5 million was required for the 1,006 losses that were paid in Alabama and North Carolina as a result of Danny.

In 1998, floods from thunderstorms in June and Hurricane Bonnie in August resulted in heavy losses.

The next year, Tropical Storm Dennis compounded losses from earlier flooding.

In June 2001, Tropical Storm Allison came ashore in Texas before traveling into Florida and moving northeast (see page 34 for Texas loss data). More than \$7.1

million was needed for 480 claims in Mississippi alone. Two months later, Tropical Storm Barry drenched Florida, resulting in 228 paid losses that required nearly \$2.6 million in claim payments. Last summer, nearly \$23.6 million was needed to pay the 1,523 losses that were spread throughout the region.

Between June 1, 1983, and August 31, 2003, Region IV states produced 22,821 paid losses during the summer months of June, July, and August. NFIP payments for these losses reached nearly \$289.3 million.

Summer 1998		
State	Paid Losses	Claim Payments (in millions)
FL	95	\$1.4
KY	159	\$1.3
NC	2,707	\$23.5
TN	185	\$2.2

Summer 1999		
State	Paid Losses	Claim Payments (in millions)
AL	295	\$5.5
FL	414	\$4.4
GA	992	\$17.4
NC	761	\$8.3

## FEMA Region IV: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	AL	FL	GA	KY	MS	NC	SC	TN
<b>Paid Losses</b>	1,501	16,479	3,029	853	2,344	7,179	803	646
<b>Claim Payments</b>	\$23,761,026	\$271,998,675	\$69,233,831	\$7,821,729	\$24,214,948	\$87,352,886	\$6,935,348	\$8,187,264
<b>Average Claim Payment</b>	\$15,830	\$16,506	\$22,857	\$9,170	\$10,331	\$12,168	\$8,637	\$12,674
<b>Occupancy</b>								
Single Family								
Paid Losses	1,257	13,294	2,518	651	1,869	5,536	557	468
Claim Payments	\$18,968,780	\$210,451,467	\$50,223,515	\$4,083,476	\$16,259,247	\$49,242,994	\$3,808,544	\$4,322,239
2 - 4 Family								
Paid Losses	30	929	172	23	45	424	72	38
Claim Payments	\$238,258	\$8,508,803	\$5,860,301	\$254,890	\$569,453	\$4,681,909	\$758,976	\$402,364
Other Residential								
Paid Losses	55	1,057	147	40	79	398	47	11
Claim Payments	\$875,847	\$25,176,583	\$5,474,697	\$961,205	\$1,454,638	\$13,566,619	\$831,305	\$93,708
Non-Residential								
Paid Losses	159	1,199	192	139	351	821	127	129
Claim Payments	\$3,678,142	\$27,861,821	\$7,675,319	\$2,522,157	\$5,931,610	\$19,861,364	\$1,536,523	\$3,368,954
<b>Zone</b>								
A Zone								
Paid Losses	910	13,196	1,745	513	1,418	5,443	483	394
Claim Payments	\$15,260,898	\$222,355,783	\$45,364,519	\$4,694,237	\$14,188,248	\$66,029,453	\$3,842,561	\$4,801,642
V Zone								
Paid Losses	123	1,248	2	0	7	460	25	0
Claim Payments	\$643,193	\$22,669,887	\$2,641	\$0	\$29,624	\$6,322,542	\$165,229	\$0
B, C and X Zone								
Paid Losses	452	1,856	1,236	296	702	1,092	292	241
Claim Payments	\$7,579,751	\$24,261,171	\$22,817,128	\$2,841,567	\$8,359,996	\$13,438,091	\$2,922,094	\$3,345,405
Other Zone								
Paid Losses	16	178	46	44	217	184	3	10
Claim Payments	\$277,183	\$2,705,483	\$1,049,543	\$285,925	\$1,637,080	\$1,562,799	\$5,464	\$39,317
<b>Special Policies</b>								
PRP								
Paid Losses	135	622	681	63	201	296	91	74
Claim Payments	\$2,097,809	\$5,952,928	\$9,733,597	\$449,090	\$1,887,497	\$2,176,736	\$677,907	\$1,055,370
RCBAP								
Paid Losses	22	118	20	0	2	186	20	1
Claim Payments	\$95,040	\$6,220,217	\$233,155	\$0	\$2,141	\$4,874,593	\$310,412	\$6,553
MPPP								
Paid Losses	0	3	5	3	5	1	0	1
Claim Payments	\$0	\$36,266	\$124,017	\$20,977	\$38,074	\$2,524	\$0	\$11,902

## FEMA Region V: NFIP Summer Flood Losses

More than half of all flood losses paid in the FEMA Region V Great Lakes states (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin) since 1983 have been the result of flooding that occurred during the summer months of June, July, and August.

Illinois was hit by serious flooding in July 1983 that required more than \$2.9 million for 376 NFIP claims. During the next 3 years, an average of 146 NFIP losses was paid each summer. However, the summer of 1987 produced heavier flood losses.

Flooding during the next 5 years averaged 212 paid losses spread throughout Region V states each summer. Then came the Midwest Floods of 1993.

Midwest thunderstorms and slow-moving weather disturbances during summer 1996 were responsible for flooding that produced 1,651 Region V paid losses—most in Illinois—that required in excess of \$21.2 million for claim payments.

State	Summer 1987	
	Paid Losses	Claim Payments (in millions)
IL	1,305	\$15.6
MN	106	\$1.2
OH	90	\$1.2

State	Summer 1993	
	Paid Losses	Claim Payments (in millions)
IL	2,626	\$61.8
IN	63	\$0.8
MN	244	\$1.8
OH	80	\$0.7
WI	151	\$1.3

The following summer, severe thunderstorms again resulted in significant flood losses.

The summer of 1998 produced even more devastating flood losses in the region.

Cumulative paid losses in Region V during the next 4 years averaged nearly 395 each summer. However, in June 2002, a series of nocturnal thunderstorms caused serious flooding in northern Minnesota that produced 231 losses requiring \$3.6 million in claim payments.

Last summer, flooding was even worse.

Between June 1, 1983, and August 31, 2003, nearly \$199.9 million was paid for 14,594 NFIP claims in Region V during the summer months of June, July, and August.

State	Summer 1998	
	Paid Losses	Claim Payments (in millions)
IN	189	\$1.9
MN	67	\$1.1
OH	534	\$9.5
WI	645	\$7.3

State	Summer 2003	
	Paid Losses	Claim Payments (in millions)
IL	162	\$0.8
IN	607	\$9.6
OH	500	\$9.0

## FEMA Region V: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	IL	IN	MI	MN	OH	WI
<b>Paid Losses</b>	7,054	1,509	449	1,206	2,558	1,818
<b>Claim Payments</b>	\$108,982,026	\$17,560,903	\$4,145,916	\$13,661,700	\$37,004,661	\$18,536,392
<b>Average Claim Payment</b>	\$15,450	\$11,637	\$9,234	\$11,328	\$14,466	\$10,196
<b>Occupancy</b>						
Single Family						
Paid Losses	6,018	1,298	345	1,014	2,008	1,431
Claim Payments	\$83,323,493	\$13,154,896	\$2,017,119	\$9,519,243	\$19,648,494	\$10,742,717
2 - 4 Family						
Paid Losses	218	57	8	24	75	210
Claim Payments	\$1,764,184	\$514,233	\$40,033	\$235,958	\$627,394	\$1,266,699
Other Residential						
Paid Losses	159	30	32	29	109	53
Claim Payments	\$2,619,908	\$1,456,932	\$1,305,797	\$656,223	\$1,519,873	\$498,081
Non-Residential						
Paid Losses	659	124	64	139	366	124
Claim Payments	\$21,274,441	\$2,434,843	\$782,967	\$3,250,276	\$15,208,899	\$6,028,894
<b>Zone</b>						
A Zone						
Paid Losses	5,124	1,082	223	819	1,609	1,336
Claim Payments	\$87,250,822	\$11,923,333	\$1,363,114	\$8,580,716	\$24,270,741	\$14,491,244
V Zone						
Paid Losses	0	0	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0	\$0	\$0
B, C and X Zone						
Paid Losses	1,676	368	185	356	824	387
Claim Payments	\$18,455,956	\$5,159,571	\$2,558,357	\$4,793,583	\$11,347,185	\$3,657,652
Other Zone						
Paid Losses	254	59	41	31	125	95
Claim Payments	\$3,275,248	\$477,999	\$224,445	\$287,401	\$1,386,735	\$387,495
<b>Special Policies</b>						
PRP						
Paid Losses	460	119	31	179	253	167
Claim Payments	\$2,855,616	\$1,974,118	\$147,572	\$2,423,964	\$3,828,064	\$1,288,009
RCBAP						
Paid Losses	9	0	9	0	0	0
Claim Payments	\$167,129	\$0	\$1,138,783	\$0	\$0	\$0
MPPP						
Paid Losses	4	2	0	0	1	5
Claim Payments	\$10,663	\$16,253	\$0	\$0	\$9,460	\$19,368

## FEMA Region VI: NFIP Summer Flood Losses.

More than 45 percent of all summer losses paid in the United States and its territories since 1983 have been paid in FEMA Region VI states (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas). Nearly 80 percent of this region's paid losses have occurred during the summer months.

One of Region VI's most devastating summers occurred in 1983, when Hurricane Alicia hit Texas and then soaked Louisiana.

Summer 1983		
State	Paid Losses	Claim Payments (in millions)
LA	894	\$6.6
TX	10,776	\$120.8

Two years later, flooding from Hurricane Elena produced 608 losses in Louisiana and Texas that required almost \$4.1 million in claim payments. When Hurricane Bonnie came ashore in June 1986, flooding in the two states produced 688 paid losses that required nearly \$5.1 million in payments. Three years later, Hurricane Chantel soaked the Gulf Coast states.

Summer 1989		
State	Paid Losses	Claim Payments (in millions)
AR	86	\$0.9
LA	1,272	\$13.8
TX	6,822	\$87.2

In summer 1991, Louisiana suffered flooding that required nearly \$16.2 million for 1,982 NFIP claim payments.

The following summer, Hurricane Andrew hit Louisiana in August before continuing on to Florida where it did even more damage. More than \$29.4 million was required for 2,365 Louisiana claims. The next summer, Tropical Storm Arlene pro-

duced 453 paid losses requiring nearly \$5.4 million in payments for Texas policyholders.

Severe weather in May 1995 produced June flooding in Oklahoma that resulted in 423 losses requiring more than \$5.2 million for claim payments. Two years later, Tropical Storm Danny stalled over the Mississippi Delta before moving northeast. That summer, flooding in Louisiana caused 520 paid losses costing \$5.2 million. Texas flooding caused 468 paid losses requiring \$10.7 million.

Flooding during the next 3 summers produced an average of 360 Region VI claims. But when Tropical Storm Allison hit Louisiana and Texas in June 2001, the number of paid losses shot into the thousands. Before the region could recover, a series of stalled fronts in August dumped more rainfall over Texas.

Summer 2001		
State	Paid Losses	Claim Payments (in millions)
LA	5,768	\$92.6
TX	23,839	\$971.5

In 2002, torrential summer rains in Texas resulted in 2,311 paid losses requiring more than \$74.7 million in claim payments.

Last summer, Tropical Storm Bill made landfall in Louisiana during June, Hurricane Claudette made landfall in Texas in July, and in August, Tropical Storm Grace made landfall in Louisiana before moving into Texas. Altogether, 2,119 losses required nearly \$20.6 million in claim payments in the region.

Between June 1, 1983, and August 31, 2003, flooding in Region VI states produced 67,030 paid losses during the summer months of June, July, and August. NFIP payments for these losses exceeded \$1.5 billion.

## FEMA Region VI: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	AR	LA	NM	OK	TX
<b>Paid Losses</b>	427	16,460	139	1,026	48,978
<b>Claim Payments</b>	\$5,704,746	\$192,189,406	\$786,649	\$10,740,277	\$1,312,761,530
<b>Average Claim Payment</b>	\$13,360	\$11,676	\$5,659	\$10,468	\$26,803
<b>Occupancy</b>					
Single Family					
Paid Losses	307	13,906	106	743	43,795
Claim Payments	\$2,236,348	\$153,914,734	\$589,004	\$7,535,603	\$1,112,209,541
2 - 4 Family					
Paid Losses	23	904	11	41	724
Claim Payments	\$110,702	\$7,557,554	\$37,850	\$232,869	\$12,651,006
Other Residential					
Paid Losses	5	334	4	38	1,486
Claim Payments	\$99,516	\$4,742,461	\$36,183	\$269,652	\$60,657,617
Non-Residential					
Paid Losses	92	1,316	18	204	2,973
Claim Payments	\$3,258,181	\$25,974,657	\$123,612	\$2,702,153	\$127,243,366
<b>Zone</b>					
A Zone					
Paid Losses	265	10,488	82	729	23,584
Claim Payments	\$4,237,426	\$124,159,215	\$420,615	\$7,660,783	\$689,852,805
V Zone					
Paid Losses	0	857	0	0	2,329
Claim Payments	\$0	\$9,961,354	\$0	\$0	\$19,419,687
B, C and X Zone					
Paid Losses	141	4,453	23	275	22,132
Claim Payments	\$1,200,213	\$52,446,481	\$267,418	\$2,927,182	\$593,402,524
Other Zone					
Paid Losses	21	662	34	22	933
Claim Payments	\$267,107	\$5,622,356	\$98,616	\$152,312	\$10,086,515
<b>Special Policies</b>					
PRP					
Paid Losses	18	1,598	10	30	9,604
Claim Payments	\$157,395	\$20,971,988	\$52,360	\$390,543	\$279,225,890
RCBAP					
Paid Losses	0	18	0	3	144
Claim Payments	\$0	\$421,285	\$0	\$50,606	\$16,452,380
MPPP					
Paid Losses	0	17	0	0	40
Claim Payments	\$0	\$111,142	\$0	\$0	\$800,295

## FEMA Region VII: NFIP Summer Flood Losses

More than 40 percent of losses paid in FEMA Region VII Plains states (Iowa, Kansas, Missouri, and Nebraska) since 1983 have resulted from flooding during June, July, and August. The summer of 1984 was a wet one for this region.

An average of 71 Region VII losses was paid during each of the next five summers. Paid losses shot up in 1990, however.

The next summer, Missouri suffered 88 NFIP losses that required nearly \$2 million in payments. Two years later, the Midwest Floods of 1993 began in late spring and continued throughout the summer, causing one of the most costly disasters in U.S. history.

In 1995, Missouri suffered more than 160 paid summer flood losses requiring nearly \$1.4 million in claim payments. The next summer, more than \$4.5 million was needed to pay 342 losses spread through all four

states, though Iowa was hit hardest. The summer of 1998, flood losses in Iowa and Missouri were even higher.

Clusters of thunderstorms repeatedly moved across Iowa and Minnesota during the summer of 1999, causing some of the most serious flooding in Region VII since the Midwest Floods of 1993.

Powerful storms rolling across the Plains states during summer 2000 produced 87 paid losses in Missouri that required nearly \$1.9 million in claim payments. The next summer, heavy rainfall produced 145 paid losses in Missouri and Kansas, costing nearly \$1.7 million in claim payments.

In 2002, clusters of thunderstorms that soaked Iowa produced 123 losses requiring more than \$1 million in claim payments. Last summer, claim payments exceeded \$1.1 million for 90 paid losses in Region VII—more than half in Missouri.

Between June 1, 1983, and August 31, 2003, flooding in Region VII states produced 12,684 paid losses during the summer months of June, July, and August. Nearly \$267.4 million was required for NFIP claim payments.

State	Summer 1998	
	Paid Losses	Claim Payments (in millions)
IA	119	\$1.5
MO	212	\$2.4

State	Summer 1999	
	Paid Losses	Claim Payments (in millions)
IA	523	\$3.8
KS	60	\$0.6
MO	73	\$1.6

State	Summer 1984	
	Paid Losses	Claim Payments (in millions)
IA	48	\$0.3
KS	128	\$1.0
MO	317	\$5.2
NE	548	\$5.3

State	Summer 1990	
	Paid Losses	Claim Payments (in millions)
IA	543	\$7.6
MO	222	\$1.0
NE	82	\$0.5

State	Summer 1993	
	Paid Losses	Claim Payments (in millions)
IA	1,214	\$24.5
KS	660	\$9.9
MO	5,415	\$174.4
NE	384	\$5.0

## FEMA Region VII: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	IA	KS	MO	NE
<b>Paid Losses</b>	2,866	1,357	7,116	1,346
<b>Claim Payments</b>	\$42,203,798	\$17,692,703	\$194,303,604	\$13,194,212
<b>Average Claim Payment</b>	\$14,726	\$13,038	\$27,305	\$9,803
<b>Occupancy</b>				
Single Family				
Paid Losses	2,369	1,121	5,368	1,207
Claim Payments	\$23,047,043	\$11,657,052	\$110,162,504	\$11,186,888
2 - 4 Family				
Paid Losses	49	27	112	8
Claim Payments	\$566,138	\$242,858	\$2,259,127	\$41,074
Other Residential				
Paid Losses	60	25	134	29
Claim Payments	\$1,771,548	\$212,815	\$3,751,701	\$168,070
Non-Residential				
Paid Losses	388	184	1,502	102
Claim Payments	\$16,819,069	\$5,579,977	\$78,130,272	\$1,798,180
<b>Zone</b>				
A Zone				
Paid Losses	2,321	869	5,985	1,071
Claim Payments	\$30,634,764	\$11,517,947	\$155,555,460	\$10,602,631
V Zone				
Paid Losses	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0
B, C and X Zone				
Paid Losses	459	432	979	207
Claim Payments	\$10,558,938	\$5,753,224	\$36,144,810	\$2,148,835
Other Zone				
Paid Losses	86	56	152	68
Claim Payments	\$1,010,096	\$421,532	\$2,603,334	\$442,746
<b>Special Policies</b>				
PRP				
Paid Losses	71	185	138	35
Claim Payments	\$676,725	\$1,341,235	\$1,464,764	\$266,103
RCBAP				
Paid Losses	0	0	1	0
Claim Payments	\$0	\$0	\$218	\$0
MPPP				
Paid Losses	2	1	3	0
Claim Payments	\$1,344	\$44	\$29,490	\$0

## FEMA Region VIII: NFIP Summer Flood Losses

Late snowmelt and active summer thunderstorms can produce serious summer flooding in FEMA Region VIII Rocky Mountain and Plains states (Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming). Nearly 20 percent of the region's losses since 1983 have come from floods that occurred during June, July, and August.

Utah and Colorado were hit particularly hard by summer floods in 1983.

The next summer, June flooding produced 118 paid losses in Region VIII, primarily in Colorado, South Dakota, and Utah. Wyoming was subjected to heavy flooding in 1986 that produced 64 NFIP paid losses.

The next 7 years saw relatively light summer flood losses in Region VIII: an average of 19 losses each year. But in 1993, North Dakota and South Dakota suffered significant flooding as a result of midsummer thunderstorms.

Flooding throughout the summer of 1996 produced 80 losses—primarily in Colorado, Montana, and South Dakota—that resulted in nearly \$1.1 million in claim payments.

The next summer, paid flood losses were even heavier.

Thunderstorms caused flooding in all six states, though Montana suffered the most paid losses. Heavy rains in Colorado were responsible for flash floods in July that ravaged portions of Ft. Collins, killed half a dozen people, and caused damage costing millions of dollars.

Excessive rainfall in the Plains states during July and August 1998 produced nearly 75 losses that required almost \$1.6 million in NFIP claim payments. Most of the claims were paid in Colorado.

During the summer of 1999, thunderstorms caused flooding throughout Region VIII, resulting in more than \$1.4 million in claim payments for 84 NFIP losses.

Flood losses in this region have been relative light for the last 4 summers, with total losses each summer ranging from 61 in 2001, to 11 in 2003. An average of 36 NFIP losses have been paid in Region VIII each summer since 1999.

Between June 1, 1983, and August 31, 2003, flooding in Region VIII states produced 1,612 paid losses during the summer months of June, July, and August. NFIP payments for these losses reached nearly \$15.5 million.

State	Summer 1997	
	Paid Losses	Claim Payments (in millions)
CO	106	\$0.7
ND	41	0.3
SD	18	\$0.08
WY	18	\$0.2

State	Summer 1983	
	Paid Losses	Claim Payments (in millions)
CO	51	\$0.3
UT	146	\$1.6

State	Summer 1993	
	Paid Losses	Claim Payments (in millions)
ND	123	\$0.3
SD	79	\$0.7

## FEMA Region VIII: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	CO	MT	ND	SD	UT	WY
<b>Paid Losses</b>	438	230	381	263	194	107
<b>Claim Payments</b>	\$2,927,716	\$1,806,509	\$5,504,732	\$2,336,320	\$1,910,535	\$1,024,162
<b>Average Claim Payment</b>	\$6,684	\$7,854	\$14,448	\$8,883	\$9,848	\$9,572
<b>Occupancy</b>						
Single Family						
Paid Losses	307	184	323	237	146	84
Claim Payments	\$1,548,369	\$1,500,196	\$4,026,177	\$2,020,894	\$1,629,439	\$784,940
2 - 4 Family						
Paid Losses	18	2	11	5	2	7
Claim Payments	\$135,032	\$15,526	\$139,721	\$9,470	\$1,437	\$59,490
Other Residential						
Paid Losses	25	11	14	5	23	0
Claim Payments	\$195,407	\$25,343	\$57,425	\$8,301	\$62,002	\$0
Non-Residential						
Paid Losses	88	33	33	16	23	16
Claim Payments	\$1,048,908	\$265,444	\$1,281,409	\$297,655	\$217,657	\$179,732
<b>Zone</b>						
A Zone						
Paid Losses	210	131	210	147	31	44
Claim Payments	\$1,275,472	\$867,235	\$1,018,347	\$1,031,952	\$355,652	\$492,435
V Zone						
Paid Losses	0	0	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0	\$0	\$0
B, C and X Zone						
Paid Losses	172	84	88	99	27	58
Claim Payments	\$1,327,362	\$743,447	\$2,929,668	\$1,176,647	\$136,593	\$523,792
Other Zone						
Paid Losses	56	15	83	17	136	5
Claim Payments	\$324,882	\$195,828	\$1,556,717	\$127,720	\$1,418,289	\$7,935
<b>Special Policies</b>						
PRP						
Paid Losses	61	50	55	48	8	8
Claim Payments	\$351,607	\$540,104	\$1,788,002	\$489,813	\$18,738	\$18,676
RCBAP						
Paid Losses	5	0	1	0	0	0
Claim Payments	\$84,780	\$0	\$1,116	\$0	\$0	\$0
MPPP						
Paid Losses	0	0	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0	\$0	\$0

## FEMA Region IX: NFIP Summer Flood Losses

Winter is the worst flood season in the FEMA Region IX states and territory (Arizona, California, Guam, Hawaii, and Nevada). However the Southwest Monsoons (see page 21 for details) that affect several of these states each summer have produced summer flood losses every year since 1983.

The summer floods of 1983 brought the most devastating Region IX summer losses of the analysis period.

The next summer was another wet one in Region IX.

Though Hawaii's paid claims account for only 5 percent of this region's summer flood losses, NFIP policyholders in this state have suffered losses in nearly half of the summers since 1983. One of the worst floods occurred in July 1986, when 14 losses were paid as a result of summer flooding.

The following summer, no flood losses were paid in Region IX, and the summers of 1988 and 1989 produced fewer than 15 paid losses each.

However, the summer monsoons in 1990 produced significant flooding in Arizona and Nevada.

State	Summer 1990	
	Paid Losses	Claim Payments (in millions)
AZ	124	\$1.0
NV	20	\$0.4

Two years later, flooding produced more than 90 paid losses in Arizona. The summer of 1993, Hawaii had 15 paid losses, and another 22 losses were paid in the state the following summer.

Region IX states produced an average of 21 NFIP losses during the next 3 summers. However in 1998, flooding in California and Arizona produced 47 paid losses. The next summer was another rainy one for Region IX states. Nearly \$2.7 million was paid for 135 losses in Arizona, California, Guam, and Nevada. Las Vegas was hit with devastating flash floods in July that produced 76 paid losses.

In July 2002, Guam was hit by Super Typhoon Chata'an, producing more than 16 losses. That month also brought flooding to Arizona, with 21 paid losses. Last summer, sudden heavy rainstorms in August produced 59 NFIP paid losses in Region IX. Almost \$1.6 million was paid for claims in Arizona, California, and Nevada.

Between June 1, 1983, and August 31, 2003, flooding in Region IX states produced 1,325 paid losses during the summer months of June, July, and August. NFIP payments for these losses reached nearly \$15.4 million.

## FEMA Region IX: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	AZ	CA	GU	HI	NV
<b>Paid Losses</b>	627	389	20	69	220
<b>Claim Payments</b>	\$5,607,367	\$4,003,745	\$328,005	\$1,049,196	\$4,411,313
<b>Average Claim Payment</b>	\$8,943	\$10,292	\$16,400	\$15,206	\$20,051
<b>Occupancy</b>					
Single Family					
Paid Losses	468	295	16	41	116
Claim Payments	\$3,946,702	\$3,139,973	\$272,360	\$669,222	\$1,485,676
2 - 4 Family					
Paid Losses	29	28	2	9	7
Claim Payments	\$167,168	\$252,619	\$26,250	\$265,899	\$12,992
Other Residential					
Paid Losses	43	22	0	6	11
Claim Payments	\$300,156	\$161,548	\$0	\$23,086	\$101,270
Non-Residential					
Paid Losses	87	44	2	13	86
Claim Payments	\$1,193,342	\$449,604	\$29,395	\$90,988	\$2,811,374
<b>Zone</b>					
A Zone					
Paid Losses	345	140	15	35	103
Claim Payments	\$2,609,890	\$1,536,837	\$251,594	\$431,777	\$1,898,820
V Zone					
Paid Losses	0	26	0	22	0
Claim Payments	\$0	\$369,274	\$0	\$391,149	\$0
B, C and X Zone					
Paid Losses	248	186	5	12	79
Claim Payments	\$2,574,957	\$1,758,464	\$76,411	\$226,270	\$1,704,613
Other Zone					
Paid Losses	34	37	0	0	38
Claim Payments	\$422,520	\$339,170	\$0	\$0	\$807,880
<b>Special Policies</b>					
PRP					
Paid Losses	30	25	1	0	18
Claim Payments	\$231,211	\$449,917	\$13,312	\$0	\$296,593
RCBAP					
Paid Losses	0	0	0	2	0
Claim Payments	\$0	\$0	\$0	\$188,216	\$0
MPPP					
Paid Losses	1	1	0	0	0
Claim Payments	\$5,789	\$15,889	\$0	\$0	\$0

## FEMA Region X: NFIP Summer Flood Losses

Although winter is the season in which FEMA Region X states (Alaska, Idaho, Oregon, and Washington) sustain the most paid NFIP losses, only once since 1983 has a summer passed without insured flood losses being paid somewhere in the Pacific Northwest or Alaska. Summer flood losses account for less than 3 percent of the region's total paid losses since 1983. However, even in a region where summer flood losses may not be severe, some summers produce more damaging floods than others.

In June and August 1983, Idaho, Oregon, and Washington were subjected to flooding that produced 18 paid losses. Floods hit the same three states the following summer.

For the next decade, flood losses were relatively light in Region X states. No NFIP claims were paid in 1985 or 1987, and paid losses during the remaining years averaged only 4 each summer. Two-thirds of these came from Alaska, which produced paid losses every summer in which claims were paid.

Nearly 70 percent of the paid summer flood losses in Region X since 1983 have come from Idaho and Washington. During the summer of 1995, both states were hit by floods that resulted in nearly a dozen paid losses.

The floods that produced the most paid flood losses in Region X during the analysis period occurred during the summer of 1997. Nearly 100 losses spread throughout the region required more than \$1 million in claim payments. Idaho and Washington, again, were the hardest hit by floods that summer.

State	Summer 1997	
	Paid Losses	Claim Payments (in millions)
ID	45	\$0.5
WA	43	\$.05

Between June 1, 1983, and August 31, 2003, flooding in Region X states produced 195 paid losses during the summer months of June, July, and August. NFIP payments for these losses reached nearly \$2.6 million.

## FEMA Region X: NFIP Summer Flood Losses (June, July, and August)

June 1, 1983, through August 31, 2003 (Data as of January 31, 2004)

	AL	ID	OR	WA
<b>Paid Losses</b>	31	65	28	71
<b>Claim Payments</b>	\$834,356	\$604,430	\$341,341	\$775,776
<b>Average Claim Payment</b>	\$26,915	\$9,299	\$12,191	\$10,926
<b>Occupancy</b>				
Single Family				
Paid Losses	27	60	23	60
Claim Payments	\$731,666	\$508,821	\$242,502	\$714,113
2 - 4 Family				
Paid Losses	3	0	0	0
Claim Payments	\$92,690	\$0	\$0	\$0
Other Residential				
Paid Losses	0	0	0	3
Claim Payments	\$0	\$0	\$0	\$16,348
Non-Residential				
Paid Losses	1	5	5	8
Claim Payments	\$10,000	\$95,609	\$98,839	\$45,314
<b>Zone</b>				
A Zone				
Paid Losses	13	32	9	28
Claim Payments	\$97,759	\$148,303	\$39,312	\$280,701
V Zone				
Paid Losses	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0
B, C and X Zone				
Paid Losses	14	31	7	37
Claim Payments	\$700,112	\$451,268	\$103,859	\$360,202
Other Zone				
Paid Losses	4	2	12	6
Claim Payments	\$36,485	\$4,859	\$198,169	\$134,873
<b>Special Policies</b>				
PRP				
Paid Losses	1	19	3	24
Claim Payments	\$29,500	\$316,661	\$10,213	\$207,573
RCBAP				
Paid Losses	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0
MPPP				
Paid Losses	0	0	0	0
Claim Payments	\$0	\$0	\$0	\$0

# Re:Sources

**W**atermark seeks to serve its readers with as wide a variety of resources as possible. We remain dedicated to disseminating information about flood insurance. As our readership expands to include more engineers, surveyors, and community planners, we hope to increase the available resources to ensure that all of our stakeholders can provide themselves, their clients, and their community members with the tools needed to better protect against flood losses.

We offer this information for reference but do not endorse any product, company, or service. Unless otherwise noted, resources cited are free of charge. Web site addresses may have changed since this edition of *Watermark* went to press.

## Publications

### **Resources for Recovery: Post-Disaster Aid for Cultural Institutions**

Cultural institutions and their collections can be devastated by natural and man-made disasters. Planning is the best defense against loss of irreplaceable cultural artifacts. This brochure offers pre- and post-disaster planning activities and discusses the various organizations (and their contact points)—such as FEMA, the Small Business Administration, and the National Endowment for the Arts (NEA)—that can assist cultural institutions in their time of need. Copies are available from the National Task Force on Emergency Response (202-634-1422) and the NEA (202-682-5400).



### **Integrating Environmental Review Into the Temporary Group Housing Site Selection Process**

The purpose of this brochure is to introduce Federal, State, and local officials to the scope, concepts, issues, timing, and key FEMA staff to be contacted for integrating environmental review into the temporary group housing



site selection process. The document can be obtained from FEMA Regional Offices (see phone numbers on page 43 of this issue); ask to speak with the environmental officer.

### **Planning for a Sustainable Future**

Recently updated, this booklet highlights the connection between planning and community sustainability. It focuses on a vision of sustainable communities and is a must for community disaster prevention. This 42-page booklet (FEMA Document 364) can be ordered by calling the FEMA Distribution Center at 800-480-2520. It also can be downloaded from the FEMA web site ([www.fema.gov/fima/planning\\_toc.shtm](http://www.fema.gov/fima/planning_toc.shtm)).

### **Rebuilding for a More Sustainable Future: An Operational Framework**

The follow-up publication to *Planning for a Sustainable Future*, this booklet develops the themes introduced in the original document into more guidance for use in a post-disaster setting. This publication (FEMA Document 365) can be ordered by calling the FEMA Distribution Center (800-480-2520) and is also available from the FEMA web site ([www.fema.gov/fima/planning\\_toc2.shtm](http://www.fema.gov/fima/planning_toc2.shtm))



### **Integrating Human-Caused Hazards into Mitigation Planning**

The fifth of a projected nine titles in the FEMA Mitigation "how-to" planning guide series, this publication helps communities identify hazards and assess potential damages. This booklet (and the rest of the FEMA 386 "how-to" series) can be obtained from the FEMA Distribution Center (800-480-2520; ask for FEMA Document 386-7), or on FEMA's web site ([www.fema.gov/fima/planhowto.shtm](http://www.fema.gov/fima/planhowto.shtm)).



### **GIS in Public Policy: Using Geographic Information for More Effective Government**

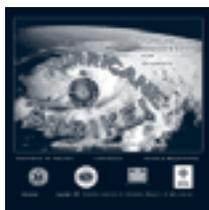
This publication tells the stories of how a broad variety of public servants from teachers to legislators are

accomplishing their missions through geographic information systems. The book, by R. W. Green, includes a foreword by Ann Azari, former mayor of Ft. Collins, Colorado, and keynote speaker at the 1999 National Flood Conference. The book can be obtained from the Independent Publishers Group (800-888-4741) for \$29.95.

## CD

### ***Hurricane Strike! The Ultimate Interactive Hurricane Educational CD for Middle Schoolers***

Developed by FEMA in cooperation with the Weather Channel, the National Oceanic and Atmospheric Administration, the National Weather Service, and the American Red Cross, this CD is a multimedia learning package aimed at middle school students. Hurricane scenarios combine science and safety information to engage the user. To order a copy or for more information about the CD's content, contact Bill Massey (770-220-5430) or Brock Long (770-220-5668) at FEMA Region IV.



## Web Sites

### ***www.disasterhelp.gov***

Have you heard of DisasterHelp.Gov? It offers "one-stop shopping" for disaster responders and consumers alike. Information for a wide range of hazards is available on this site, from acts of terrorism to fires, earthquakes, floods, and power outages. Links are provided to a variety of Federal and other organizations.

### ***www.nlic.org***

The National Lenders Insurance Council (NLIC) is an NFIP partner in providing information to the lending industry about the risks of flooding and the protection offered by flood insurance. The NLIC web site includes interactive features such as a Message Board, an Opinion Poll, a Site Search tool, E-mail Subscription, and more.

### ***www.ibhs.org***

The Institute for Building and Home Safety (IBHS) is devoted to making homes and businesses safer from natural disasters. The IBHS web site is full of information about safe building practices, covering areas from building codes to public safety strategies. The site has information on a

wide variety of ways to protect property from damage by floods, mold, freezing weather, tornadoes, earthquakes, and more.

The IBHS "Fortified...for Safer Living" program heralds a new way to build and sell homes in disaster-prone areas, as safety-conscious consumers drive the market for hazard-resistant residences. The "Fortified...for Safer Living" section of the IBHS web site specifies construction, design, and landscaping guidelines for increasing the resistance of homes and businesses to such natural disaster perils as high wind, wildfire, flood, hail, and earthquake.

### ***www.colorado.edu/hazards/***

The Natural Hazards Research and Applications Information Center, located at the University of Colorado, Boulder, Colorado, is a national and international clearinghouse that provides information about natural hazards and human adjustments to these risks. The center's prime goal is to increase communication among hazard/disaster researchers and those individuals, agencies, and organizations that are working to reduce disaster damage and suffering. The Natural Hazards Center carries out its mission in four principal areas: information dissemination, an annual workshop, research, and library services. A complete list of publications is accessible at the Natural Hazards Center site ([www.colorado.edu/hazards/pubs](http://www.colorado.edu/hazards/pubs)).

### ***www.riskinstitute.org/***

The Public Entity Risk Institute (PERI) is dedicated to risk management for local governments, small businesses, and small nonprofit entities. The goal of the PERI web site is to link risk managers with the information they need. The site also serves as an information clearinghouse, offering links to hundreds of resources in risk management, disaster management, and environmental liability management. PERI has created a national database of public sector risk management information—known as the Data Exchange—that allows local governments to compare their loss experiences and learn from the experiences of other jurisdictions. Visit the PERI online bookstore ([www.riskinstitute.org/peribookstore/store/dynamicIndex.asp](http://www.riskinstitute.org/peribookstore/store/dynamicIndex.asp)) for more information.

### ***www.fema.gov/regions/***

Did you know that you could find out what's happening in your FEMA region on the web? Just go to [www.fema.gov/regions/](http://www.fema.gov/regions/), look at the map for your area,

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point, and click. The information available at this site is tailored to 10 distinct areas in the United States. For instance, in the Region VIII (Colorado, the Dakotas, Montana, Utah, and Wyoming) portion of this site you can click on hyperlinks to information about wildfires, tribal relations, and the Firefighters Grant Program. Or, by clicking on "Disaster History" at the Region III portion of this site, you'll find information about recent mid-Atlantic storms and other emergencies in the last decade, broken down by each of the six Region III states.

**[www.books.elsevier.com/architecturalpress/](http://www.books.elsevier.com/architecturalpress/)**

If you are looking for books about natural and man-made disasters and their effects on buildings, try the Elsevier technical information site. Elsevier's site includes links to published material, electronic resources, research sources, and product sites for technical journals and other published documentation that includes structural and building information.

**[www.fema.gov/kids/index.htm](http://www.fema.gov/kids/index.htm)**

Got kids? As part of FEMA's ongoing commitment to educating young people about disaster preparedness and risk reduction, the "FEMA for Kids" web site has developed a variety of puzzles, jokes, games, and information about how to keep safe from many natural perils, including floods, tornadoes, hurricanes, and earthquakes. There's even a new web-based board game for children called Disaster Discovery.

**[www.dhs.gov/grants](http://www.dhs.gov/grants)**

Information about U.S. Department of Homeland Security (DHS) grants and training is now easier to access

at this new web page. Each grant and training opportunity listed on the site contributes to making our nation more secure against the threat of terrorism, as well as other man-made and natural disasters. The site provides information about grant opportunities from DHS and other Federal agencies, including public health preparedness grants from the U.S. Department of Health and Human Services, counter-terrorism grants from the U.S. Department of Justice, and water-security grants from the Environmental Protection Agency. Also featured on the site is a listing of all Federal anti-terrorism training available to State and local emergency personnel. You can search for a specific course by its title, by sponsoring department or agency, or by training topic. There is a link to current FEMA training courses as well.

**[www.fema.gov/ehp/](http://www.fema.gov/ehp/)**

This is the web site for FEMA's Environmental, Historic Preservation, and Cultural Resources Programs. Types of information that can be accessed from this site include descriptions of Federal environmental and historic preservation policies, environmental assessments available for public review and comment, and information about training opportunities.

**[www.fema.gov/fima/planning.shtm](http://www.fema.gov/fima/planning.shtm)**

FEMA's Mitigation Planning site provides information about the Pre-Disaster Mitigation (PDM) Program's guidance documents such as the mitigation planning "how-to" series, funding programs, and links to other FEMA-related web sites. 

# Just Around the Bend

Many more workshops will have been added to our schedule since publication of this issue. Please visit the NFIP web site ([www.fema.gov/nfip/wshops.shtm](http://www.fema.gov/nfip/wshops.shtm)) for updated workshop information, or contact the NFIP Bureau and Statistical Agent Regional Offices (listed on the next page) for information about NFIP events for agents, lenders, and other stakeholders.

STATE/EVENT	CITY	DATE	STATE/EVENT	CITY	DATE
<b>ALASKA</b>			<b>MINNESOTA</b>		
NAIC Fall Meeting	Anchorage	Sept. 11-14	Lender Seminar	Eden Prairie	Sept. 28
Agent and Lender Seminar	Fairbanks	Sept. 14	Lender Seminar	Rochester	Sept. 29
Agent and Lender Seminar	Anchorage	Sept. 15	<b>NEBRASKA</b>		
Agent and Lender Seminar	Juneau	Sept. 16	Agent and Lender Seminar	Grand Island	Aug. 3
Agent and Lender Seminar	Ketchikan	Sept. 17	Agent and Lender Seminar	North Platte	Aug. 4
<b>ARIZONA</b>			Agent and Lender Seminar	Sidney	Aug. 5
ASDSO Annual Conference	Phoenix	Sept. 7-10	Agent and Lender Seminar	Columbus	Aug. 17
<b>CALIFORNIA</b>			Agent and Lender Seminar	Lincoln	Aug. 18
CUNA Annual Congress	San Diego	Sept. 22-26	<b>NEW YORK</b>		
CPCU Society Annual Meeting	Los Angeles	Oct. 23-26	Agent Workshop	New York City	Aug. 18
MBA Annual Conference	San Francisco	Oct. 24-27	ABA Annual Conference	New York City	Oct. 3-6
<b>DISTRICT OF COLUMBIA</b>			<b>NORTH CAROLINA</b>		
NAMIC Annual Conference	Washington	Sept. 19-22	Dam Safety Conference	Charlotte	Sept. 9-10
<b>FLORIDA</b>			<b>OHIO</b>		
Lender Seminar	West Palm Beach	Aug. 9	Lender Seminar	Columbus	Aug. 26
Agent Workshop	West Palm Beach	Aug. 10	Lender Seminar	Blue Ash	Sept. 15
IIAA Annual Conference	Orlando	Oct. 12-16	<b>OREGON</b>		
AWRA Annual Conference	Orlando	Nov. 1-4	Agent Workshop	Portland	Aug. 17
<b>IDAHO</b>			Lender Seminar	Portland	Aug. 18
Agent and Lender Seminar	Ketchum	Aug. 11	Agent and Lender Seminar	Medford	Aug. 30
Agent and Lender Seminar	Boise	Aug. 13	Agent and Lender Seminar	Myrtle Creek	Aug. 31
<b>ILLINOIS</b>			Agent Workshop	Eugene	Sept. 1
Lender Seminar	Schaumburg	Aug. 31	Lender Seminar	Eugene	Sept. 2
Lender Seminar	Springfield	Sept. 2	<b>VIRGINIA</b>		
<b>INDIANA</b>			Agent Workshop	Culpeper	Sept. 29
Agent Workshop	Indianapolis	Oct. 26	<b>WASHINGTON</b>		
Agent Workshop	Jeffersonville	Oct. 27	Agent Workshop	Aberdeen	Aug. 19
Agent Workshop	Evansville	Oct. 28	Lender Seminar	Aberdeen	Aug. 20
<b>MARYLAND</b>			<b>WEST VIRGINIA</b>		
Agent Workshop	Lanham	Sept. 22	Agent Workshop	Charleston	Aug. 31
Lender Seminar	Lanham	Sept. 23	<b>WISCONSIN</b>		
Agent Workshop	Glen Burnie	Oct. 28	Lender Seminar	Milwaukee	Aug. 18
Agent Workshop	Glen Burnie	Dec. 2	Lender Seminar	Madison	Aug. 19
<b>MICHIGAN</b>					
Lender Seminar	Livonia	Sept. 22			

### The following acronyms are used in JUST AROUND THE BEND:

ABA	American Bankers Association	CPCU	Chartered Property Casualty Underwriter	MBA	Mortgage Bankers Association
ASDSO	Association of State Dam Safety Officials	CUNA	Credit Union National Association	NAIC	National Association of Insurance Commissioners
AWRA	American Water Resources Association	IIAA	Independent Insurance Agents & Brokers of America	NAMIC	National Association of Mutual Insurance Companies

# National Flood Insurance Program

# Telephone Numbers

[www.fema.gov/nfip](http://www.fema.gov/nfip)

## NFIP Telephone Numbers

Number	Service
800-638-6620	Direct Business
800-720-1093	Agent Information
800-427-4661	General Information
800-611-6125	Lender Information
800-427-5593	TDD
877-336-2627	FEMA Map Assistance Center (Information about flood hazard maps and map changes)
800-358-9616	FEMA Map Service Center (Order flood maps and FIS studies, <i>Flood Insurance Manual</i> , and <i>Community Status Book</i> )
800-480-2520 301-497-6378 FAX	FEMA Distribution Center (Order free NFIP forms and public awareness materials)

## Regional Office Telephone Numbers

Region	FEMA	NFIP Bureau & Statistical Agent
<b>Region I</b> CT, MA, ME, NH, RI, VT	617-223-9540	781-848-1908
<b>Region II</b> NJ, NY Caribbean Office-PR,VI	212-680-3600 787-296-3500 <sup>1</sup>	732-603-3875 281-829-6880 <sup>2</sup>
<b>Region III</b> DC, DE, MD, PA, VA, WV	215-931-5608	856-489-4003
<b>Region IV</b> AL, GA, KY, MS, NC, SC, TN FL	770-220-5400 -----	770-396-9117 813-975-7451 <sup>3</sup>
<b>Region V</b> IL, IN, MI, MN, OH, WI	312-408-5500	630-577-1407
<b>Region VI</b> AR, LA, NM, OK, TX	940-898-5399	281-829-6880
<b>Region VII</b> IA, KS, MO, NE	816-283-7061	913-780-4238
<b>Region VIII</b> CO, MT, ND, SD, UT, WY	303-235-4800	303-275-3475
<b>Region IX</b> AZ, CA, GU, HI, NV	510-627-7100	916-780-7889
<b>Region X</b> AK, ID, OR, WA	425-487-4600	425-488-5820

<sup>1</sup>FEMA contact number for Puerto Rico and the Virgin Islands.

<sup>2</sup>NFIP B&SA contact number for Puerto Rico and the Virgin Islands.

<sup>3</sup>NFIP B&SA contact number specifically for Florida.

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**NATIONAL FLOOD INSURANCE PROGRAM**  
**P.O. Box 710**  
**Lanham, MD 20703-0710**

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